bitJob

# WHITEPAPER

## V3b

A decentralized P2P marketplace for online short-term jobs for students, freelancers, and employers.

Powered by Ethereum.

Written by:
Bogdan Fiedur
Edited by:
Dror Medalion

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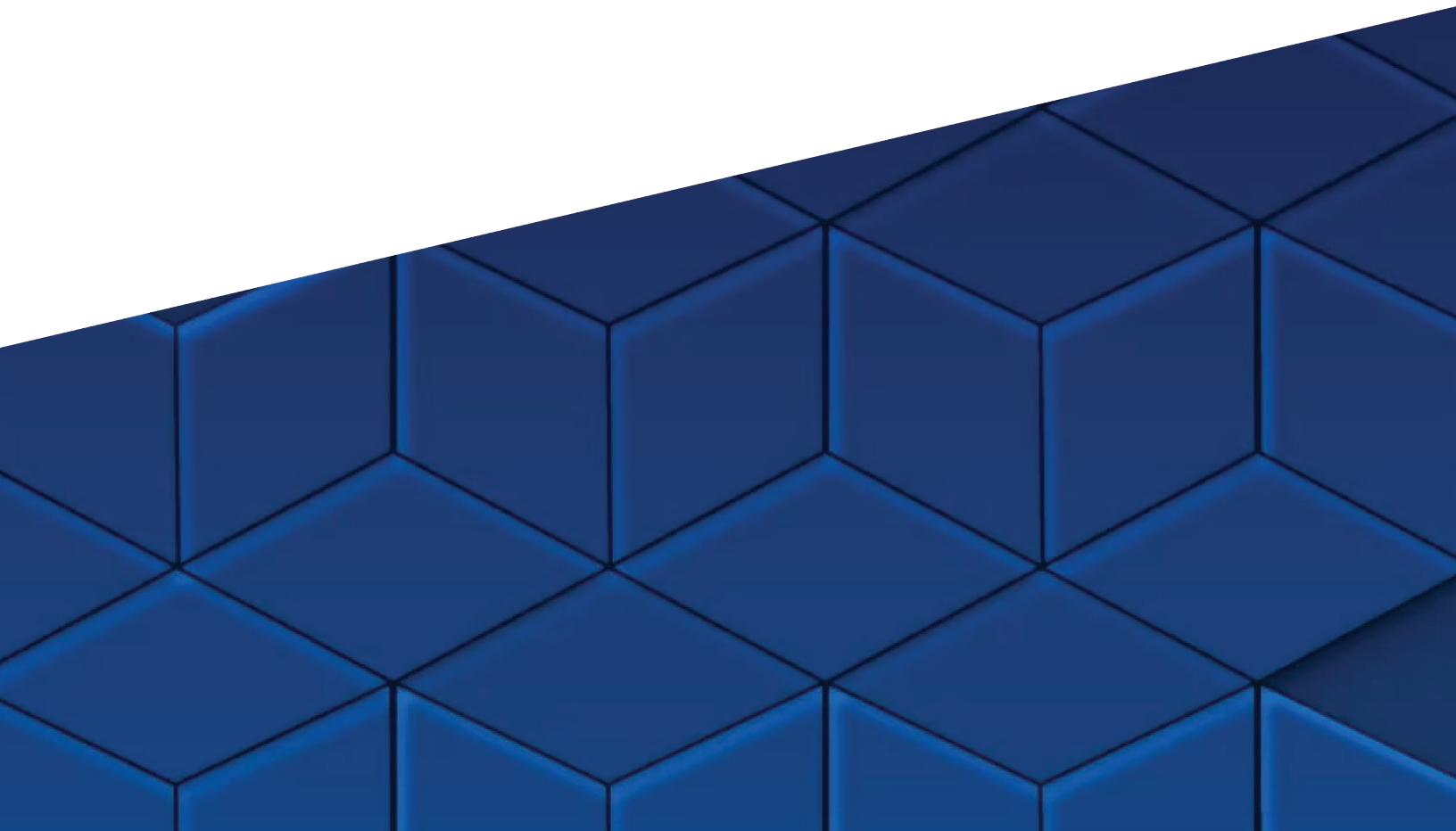
www.bitJob.io | info@bitJob.io

bitJob

# Abstract

bitJob will deploy blockchain technology in the global student community. Blockchain technology has the potential to disrupt & overcome all boundaries, but we all understand that smart education of consumers is necessary in order for this to happen. Promoting the education needed to implement decentralization and freedom of choice begins today, through the next generation of the labor market.



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# 1. Introduction

## 1.1. bitJob is the first freelancing platform that will be a hybrid of two architectural paradigms.

- Centralized client server architecture, which is used in the majority of online applications.
- Decentralized version of client server architecture that uses blockchain technology.

The purpose of this is to speed up and improve the adoption of both the idea in the crowdfunding phase and the platform by users. Although a decentralized paradigm is the ultimate goal, slow adoption of blockchain technologies should be temporarily substituted by solutions that are familiar and acceptable to an average internet user. Internet users today expect online services to be fast, with intuitive interfaces that are accessible via mobile devices. This dictates our approach which provides two technologies at the same time. With the adoption of the platform and new developments in blockchain technologies, users are seamlessly being switched to more decentralized solutions. Once users are familiar with the platform and the adoption of it is satisfactory, users will be encouraged to interact through the blockchain section, which allows them to pay for services with cryptocurrency and earn income through minting of cryptocurrency.

## 1.2. Investment in the project in the initial phase will be enabled through two vehicles.

- Regular crowdfunding, accepting fiat currencies.
- Contributors Campaigns, where tokens will be purchased with cryptocurrencies.

This will require that business will exists as two entities from the legal point of view. BitJob will facilitate the providing of freelancing services through an online platform. Participants offering a service (most often one which can be delivered online) will register with the system (as 'service providers') and offer their availability to do work in a domain which is categorized by the platform. Participants seeking certain services will register as 'service consumers' and will either contact 'service providers' through the search function, or will enter a request for service which can be found by 'service providers'. Bidding on services and setting request for services will give participants the ability to interact and find mutual agreements regardless what demand and supply is available.

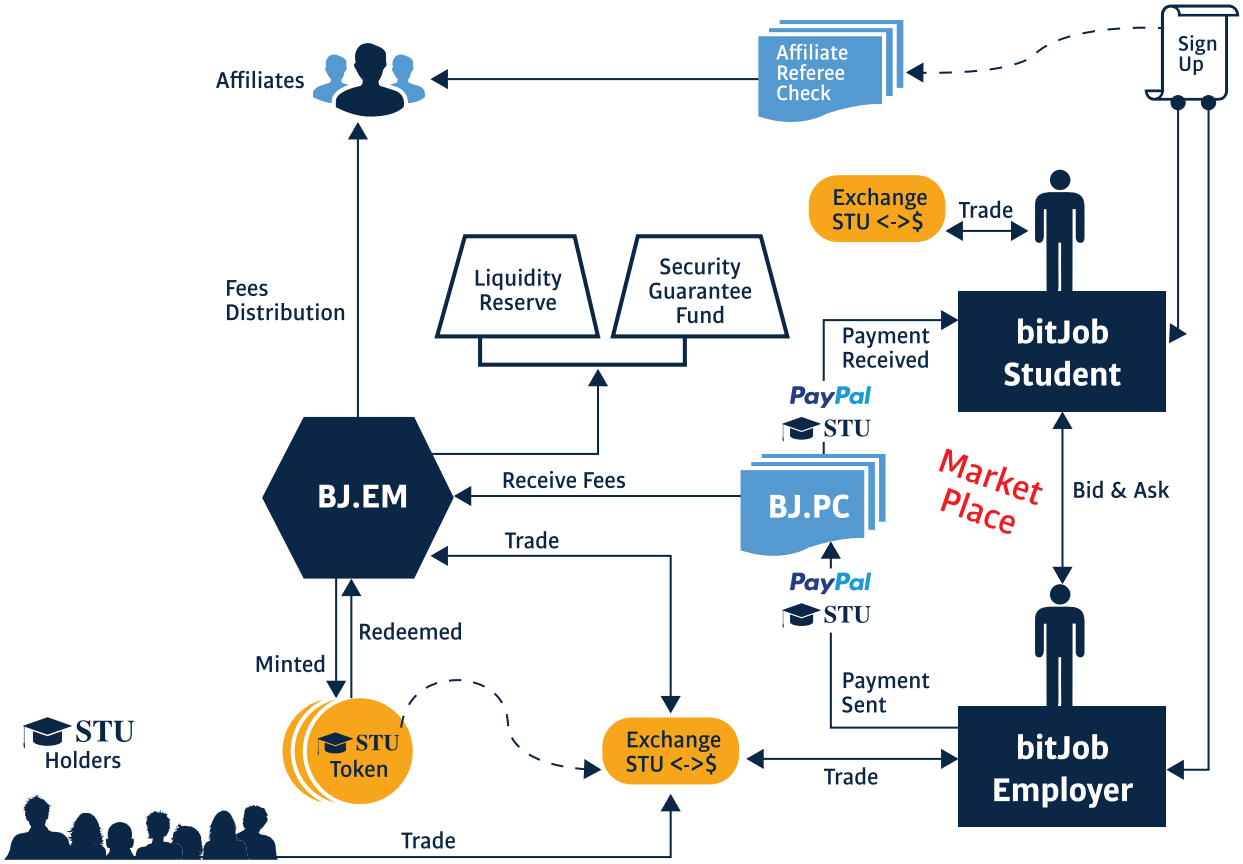
The platform will provide mechanism to ensure that, upon agreement, sufficient money is kept in escrow so the service provider is always paid unless there are issues with their providing of the service, in which case the platform will offer conflict resolution methods. Users will be able to rate each other, so frivolous or unreasonable ratings can't continue for any significant length of time. Users who collect negative ratings might be subjected to higher fees.

The platform will generate revenue through fees applied to both service providers and service consumers.

## 1.3. bitJob HYBRID MarketPlace Flowchart

The Following Flowchart represents our vision for the bitJob HYBRID architectural Marketplace, which will be handled both by Centralized servers (using fiat traditional currency payment method) and Decentralized infrastructure (Registration & Identity, Fees, Revenues distribution for Affiliates, etc').

The Chart below shows bitJob formal Token (STU) and Its allocation methods for the token holders & affiliates. More explanation about the STU token and Its usages can be found on Section 3 (STU).




☐ BJ.EM - bitJob Entity Management
☐ BJ.PC - bitJob Process Control
© STU - bitJob Token (Official)

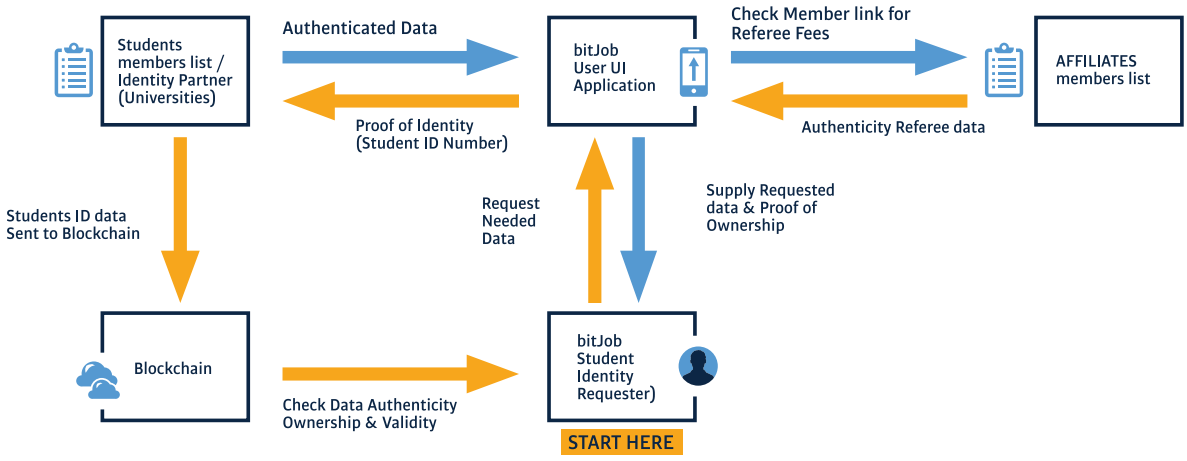
## 1.4. bitJob User Signup & Authenticity process

bitJob as an Hybrid platform holds several blockchain based features.

Ethereum allowed us to build this great application that removes the need to blindly trust server administrators. Thanks to its transparent properties, we now have strong Authentication, Identity, Verifiability, Voting, Reputation and micro-transactions for our Payments and affiliates fees distribution.

In the sketch below , We've decided to clarify the User Sign-up process which holds different aspects of authentications.

- **bitJob Student (Identify Requester)** - At this stage, the Requester (Student) will fill in the needed Data at the bitJob UI application. The UI Application will make sure the Student is a legit entity. By analyzing the supplied data as a Proof of ownership.
- **bitJob User UI Application** - a Proof of identify will be sent from the UI Application to the Students members list Storage (This will be the Student ID Number). The Storage will then return the UI Application an approval for the Authenticated Data.
- **Students Members list / Identify Partner (Universities)** - The ID's Storage will be held on the Blockchain. And each new update from the Universities will be stored and sent there as Text keys.
- **Blockchain Data check** - This stage will make sure the authenticity of the Students ID's, Ownership and Validity, Comparing the data to the Blockchain ledger will give the user a 100% Verifiability for his ID.
- **Affiliate Members list and referral validation** - This will be conducted upon registration, each Affiliate member that would like to participate in our Affiliate plan, will get a special referee Link. If he'll send that to another member for registration, a Referee reward will be allocated for him based on his referral activities.



## 1.5. bitJob Mission

We fell in love with blockchain in 2011, upon first acquaintance with and investment in Bitcoin. When Ethereum came into the world, we realized that this was what we were waiting for. The idea of bitJob emerged in our time as students, while we were enjoying the lawns of the faculty meetings—and needing some quick money. After we graduated and dove into the labor market, we were faced with a most painful problem, one that is not addressed appropriately: students finish their degrees and begin their careers with zero experience, after spending their time in jobs that do not contribute to their professional résumés.

As executives, we have encountered with another obvious need: employers find it difficult to hire quality temporary workers that fit the budget —and most of them (80%) fail in recruiting students. Our solution is to connect students with employers for small jobs online, so they can continue to specialize in their relevant profession.

For us, as entrepreneurs who want to influence the world, helping students and promoting blockchain technology—this is the realization of our dream.

## 1.6. bitJob flow

It is very simple: a student looking to provide services online connects to the marketplace, chooses from the list of professional jobs for relevant work, provides quality delivery, and receives immediate payment of his choice, in cryptocurrency or fiat money.

The student will build a reputation and be able to present his work in a Dynamic Portfolio Resume (DPR) connected to his/her own 'name' site! The DPR website will revolutionize the way HR recruit students and graduates by relying on evidence of their demonstrated abilities, rather on their LinkedIn profile or the ancient (and current) version of résumé, from previous decades.

## 1.7. Students & Employers recruitment

We built a fantastic affiliate program that will strengthen the relationship between bitJob and the students: students' unions will receive a commission from each transaction their students engage in. We have launched pilot agreements with leading student associations in Israel, in addition to a number of employers who were more than happy to participate. We are also negotiating with several leading job search engines to ensure a continuous flow of quality jobs.

## 1.8. Product Marketing

Student unions around the world constantly engage in programs for professional internships with leading employers. In order to get as many students as possible to our marketplace, we created the ultimate incentive with our affiliate program. It's a win-win setup that will play a critical part in bitJob's success. Our focus on small online student jobs will attract players in the field of employee recruitment who are in pursuit of the next generation.

## 2. Why blockchain?

In initial phase of this project, we were asked why we want to use blockchain technology for something which doesn't have obvious benefits of using it. Although the benefits are not instantly visible, they are quite convincing when they are spelled out.

- When money is moved between accounts using traditional methods, it can cost anywhere between 2% to 10% of the transaction amount. The cost of moving money on the blockchain can be in the vicinity of 0.01%. If someone could capture the difference between the current cost of settling transactions and the blockchain cost, the transfer of $1 million in revenue would produce between $20,000 and $100,000 in savings just by switching to blockchain. In certain countries, those transaction fees might be even higher, and it can take several days to process them due to restrictions and local limitations—e.g., PayPal is not offered everywhere, and in some areas, transactions are held for many days before they appear in the recipient account.
- In the very near future, blockchain technologies will be replacing existing client server architectures, and having one leg already there will allow the platform to take advantage of new ideas and trends rapidly, while other providers will be just starting to look into solutions in that space.
- A cryptocurrency crowdfunding campaign is possible when building a decentralized system. Additional funding can be obtained through communities associated with cryptocurrencies.

  Although it's not implemented in the STU Token model, The concept of mining is strictly related to the blockchain. Through the mining process, with either proof of stake or proof of work, new coins can be created and distributed to the contributing community. As mentioned, This is not part of the STU token model but will be discussed and determined in the future and may be deployed upon additional token creation.
- There is no need to create a legal entity if someone wants to reach markets in other countries. E.g., China has the largest participation in Bitcoin/Ethereum mining and has the largest crypto exchange market. India has relatively good awareness of Bitcoin due to limited banking. The platform can function in those countries without a legal presence in those countries because cryptocurrencies have no such regulations or requirements.

- There is no need for bitJob to spend money on hardware, infrastructure, or tech staff. Platforms like Ethereum offer such infrastructure, which has minimal cost only when used. Any new technological advances within the Ethereum community will be available to the platform as soon as they are created. It would be impossible for a business that facilitates freelance jobs to simultaneously invent systems that can be competitive in the global market. Due to the competitive nature of technology in global markets, it is very likely that a new platform similar to Ethereum will someday appear—offering new abilities, gaining market share, and offering competitive pricing—thus creating an environment conducive to experimentation and to inexpensive operation.
- Considering that this platform can operate in countries with much lower living standards than Western countries, transactions can have very low values. Most payment processing services charge minimum fees per transaction (e.g., $0.20). In places where the provided service might be worth $1, the charges would cost a disproportionate amount of the service value. Blockchain transactions are a fraction of this cost.

# 3. bitJob Primary Token (STU) & crowdfunding campaign emission

## 3.1. Why should bitJob have a unique Token?

Theoretically, bitJob can manage all the transactions on the platform in Ether, Bitcoin or other cryptocurrencies. So why did we decide to create our own, brand new application-coin (appcoin)?

An important question indeed! today there is already a wide variety of cryptocurrencies traded on exchanges and we expect a significant flow of ventures issuing app coins themselves, a real haystack.

**Our main reasons for issuing bitJob coin:**

- It is important to maintain unified standards and to inspire confidence in our users, including affiliates like the respectable National Students' Unions.

- Creating an incentive for the new users to sign in, a win-win scenario, and we cannot do it using Ether. Great giants like PayPal used the same strategy in their first years and we look up to the best. With our business model backed up by market studies, we expect massive demand by the student community and need to reserve our compensation options for well-designed global expansion.
- Subscriptions payments and bitJob Entity Management (BJE.M) facilitation. A successful funding will speed up bitJob full product development.
- Ventures need funding in order to get the chance to make an impact, maybe even to change the world. Using the Ethereum blockchain, the unique CrowdFund / Cryptocurrency Contributors Campaigns structure opens up new opportunities for startups like bitJob to create exciting new revenue streams woven into the hybrid marketplace, for the benefit of student unions and blockchain communities.

We dearly value our contributors and understand that funding bitJob means believing in bitJob's concept and bitJob product delivery by its team.

## 3.2. The bitJob primary token is a core element of the bitJob network, and it is designed with consideration of future network growth.

STU is initially created during the crowdfunding phase of the project and it will be attributed various functions within project.

- Payments from service consumers to service providers will be implemented through these tokens in addition to through standard fiat payments via platforms like PayPal.
- Developers, founders, and crypto-growth investors will also be receiving their rewards and remuneration in these tokens.
- Certain external services can be paid through these tokens.
- Affiliates sending referrals will be offered commission in these tokens.
- ***Users:*** Ownership and subsequent locking of certain number (e.g. 5000 coins when purchased during bitJob Contributors Campaigns) of tokens exempts users from all future bitJob economy fees. Tokens are used as proof of stake, to determine how much voting power each user has regarding the future of the platform. Members can be offered interests like rewards in the form of newly minted tokens.

  ***Evangelist:*** Receive rewards for introducing bitJob to new educational organizations. Fixed bonus after certain number of members register from the educational organization and actively use the system.

- ***Developers:*** Ownership and subsequent locking of tokens (e.g., 50,000 coins when purchased during the bitJob Contributors Campaigns) exempts developers from any future bitJob economy fees. Tokens are used as proof of stake, to determine how much voting power each developer has regarding the future of the platform. Members can be offered interest-like rewards in the form of newly mined tokens.
- ***Evangelists and Developers:*** Committing tokens for a locked period opens the opportunity to receive benefits from fees generated by the platform. Locking tokens for a fixed period of time helps protect the stability and reputation of the platform, and it represents a person's effort to spread the awareness of the platform. (There is also a duration-weighted bonus.)
- **Example:**

  Here is an example of how it works: Assume an Evangelist owns E% of the total supply. The average fee for each bitJob transaction is R and the number of bitJob transactions per day is V. The evangelist total reward per period will have an expected value of:

  - Reward = E* R * V
  - Let E = 1%, R=$10, V=1,000
  - Reward = 1 * 10 * 1000 = $100/day = $36,600/year
  - The supply of STU will not be limited to the pool of tokens created during the crowdfunding period. Minting activities will be responsible for the creation of new units. (See "Minting" section of this document.)

## 3.3. Creation of the STU and initial account functionalities

The bitJob (STU) Token is a token on the Ethereum platform. Its design follows widely adopted token implementation standards. This makes it easy to manage using existing solutions, including the Ethereum Wallet.

- Maximum number of tokens created during crowdfunding campaign:
  200,000,000 (100%)
- Sending 1 Ether to the bitJob account will create Approx. 500 STU. (Based on Ether price during the preparation of this document).
- Tokens will be transferable once the crowdfunding is successfully completed.
- The amount of STU coins per 1 Ether might vary due to movement in Ether price. The final values will be determined at the beginning of Emission day and can also be modified during the sale. According to the terms & Agreements that will be published on our CrowdFund page.

### 3.4. bitJob Token (STU) crowdfunding campaign emission will be distributed in the following way:

| DISTRIBUTION | % |
|---|---|
| Presale +Crowdfunding Campaign | 64 |
| Supervisory Board & Escrow | 2 |
| Marketing & Media Bounties | 5 |
| Founding Team | 10 |
| Ambassadors | 2 |
| Development team members, bonuses | 2 |
| Consultants team members | 8 |
| Technical tokens for stabilization of distributed network at early stage | 6 |
| Testing and bug bounty | 1 |
| Total | 100 |

- Some of the reserved marketing tokens will be used for bounties paid for the following marketing campaigns: Translation and forum moderators, Newsletter subscriptions, Bitcoins talk signatures, Twitter campaigns, Facebook likes, Blog posts.
- More details about our Bounty campaign will be given on our Slack channel and soical media.

  Our Presale & ICO Terms & conditions will be published prior to the events thru our Channels.

  Presale: August 2nd
  Formal Crowd Sale: September 12th

## 4. bitJob Platform - Token Usage flow

- When a user downloads the bitJob application, first they will be prompted to confirm their details and ensure that they provided a valid/current student number associated/registered with an Educational Organization, College or University. Upon successfully registering, a unique deposit address will be generated for them within the Ethereum network which will be used for trading tokens on the bitJob platform. A new member who would like to use services of other students will need to acquire/earn some tokens.
- This can be accomplished through direct depositing of Ether into the newly generated address or through Minting activities as mentioned below. The employers will not be able to hire any of the available service providers and/or communicate with other members until they have a sufficient amount of tokens in their account to be able to purchase a minimum quantity of service set by the service provider. The service provider will be able to review feedback provided by other service providers in regards to the member seeking services, and vice versa.
- Once the agreement between the service provider and the service seeker has been reached, a minimum value of tokens needed to pay for the service will be locked (kept in escrow). The minimum amount will be set by service provider.
- Members can engage service providers through a direct hiring or bidding process. The platform will handle bidding and determine the bidding party through rules set by both the platform and the participating parties.

- Service providers will be offered a system of reverse auction to bid to offer the lowest price for service seekers and will automatically lock the money of service seekers when the auction is finished.
- In addition to the PayPal payment solution, the platform will use tokens to measure the value of services rendered, and the platform will run on the public Ethereum network. Fees for token transaction will be minimal, as no currency exchange will take place and no fiat money or banking will be involved. In regards to PayPal or other fiat solutions, regular fees rendered by those networks will be in force. Users can choose to keep their earnings within the platform and exchange their earnings for services provided by other members.
- The system will offer interest-like rewards to members who choose to keep their earnings in the platform. A number of tokens will be mined in exchange for the long-term locking of their earnings within the system. In short, a regular user will have the opportunity to invest in the platform.
- The user would still be able to spend/transfer their locked tokens on the platform. In the case of the spending of locked tokens, a portion of the future reward would be subtracted.
- As additional features, members would have the ability to loan their tokens to other members for interest, effectively enabling this platform to be a p2p lending facility. This would increase the liquidity of the platform, because tokens would stay in the system, and it would also increase the attractiveness of the platform for members who had a higher ability of earning new tokens as they would have incentive to keep their earned tokens in the system for longer periods. The loyalty and the growth of the platform would also benefit from this.
- Stakeholders will be also rewarded by allowing them to use their stake in the organization as their voting power in the liquid democracy module which will be used to vote on issues pertaining to the future of the platform.

# 5. Contribution to the Platform

This section outlines the ideas behind bitJob and its rewards for people who provide meaningful and measurable contributions to the community.

## 5.2. Distributing Currency

There are two ways people can get involved with a cryptocurrency community: they can buy in, or they can work in it. In both cases, users are adding value to the currency; however, the vast majority of people have more free time than they do spare cash.

## 5.4. Earning Tokens through Affiliate Activity

Any activity within the startup that would create new value in the market could be rewarded with some bounties.

One of the ideas involving contributing activity is to reward actions of larger contributors to the growth of the network. It is possible that student unions at each university or educational organization would be interested in receiving referral rewards for promoting bitJob within their community. The student union could receive payments in the form of STU for each new member who joins the platform and engages in some activity considered creative effort for the platform. As the system grows and the student community becomes aware of this platform, role of the student union would be less influential, so it is reasonable to assume that rewards to the student union would be smaller, but growth of the organization would be impacted by referring of new members by other students, and those students would need to be rewarded increasingly now for their efforts.

So student unions could be initially offered a larger incentive to promote the platform but with reduced levels of earnings as time progresses—e.g., during the first year, commission could be 5% of the financial activity, then the next year could be 4%, then 3%, until the point that the student unions would receive rewards equal to those received by individual referrers.

## 5.5. Initial Directions of Expansion and Justification

For the system to be successful and get momentum going, efforts need to be started where the chances of success are the greatest.

Most mining activity happens in China, mostly due to the price of electricity, which many miners obtain free of charge from Chinese government. (This is because there is lesser demand for energy by the large commercial entities at night, but the energy supply can't be easily regulated to protect circuits from overloading. It is easier to offer free energy to other organizations than to maintain and/or replace overloaded equipment.) Also, the largest crypto trading platforms are found in China. The number of available educational centers is largest in India, followed by China and then Western countries.

The above details could indicate that initial market penetration should target those regions.

The bitJob platform will initially contact student unions of universities in North America for affiliate engagement. The main reasons for this decision are the following facts:

- Students in North America are already well connected through social media channels.
- They have easy access to Internet .
- The majority of development in the crypto-world sphere already happens in North America, thus awareness of crypto-concepts should be the largest in intellectual circles there.
- Most related publications are already in English language, which makes accessibility to this knowledge more likely to be available to someone living in North America than it is elsewhere.
- Entry into the crypto markets is also easier for residents of North America than residents of India and China, where there are large university centers but average income of those residents is ten or multiples of tens less than in North America.
- In order to enter the cryptocurrency market, a person needs to have access to banking. Today, these services are available at a more favorable level to residents of the Western world than they are in Eastern countries like China or India.
- Investment concepts and crowdfunding are also very well understood in North America, and tactics to gain significant investors in the initial stages will be much more effective there.
- Cultural understanding and language from the perspective of someone living in and understanding Western culture will also be of importance to get this platform going initially.

### 5.6. Future Steps of Expansion

Once the bitJob system is up and running and it has received a certain level of adoption in North America, efforts should be made to start application of the same affiliate concepts to university communities in India and China. This could be done one year from the initial start. A new crowdfunding round could be started and new tokens released for each country. New tokens could increase involvement of investors in those countries by giving them an early advantage of investing in a new entity when the price of tokens could still be low. Also, success of the platform in North America could give an indication of potential profits or earnings for the investors for the Indian and Chinese markets. Having country-specific tokens would allow an easy correlation between the country's pay levels and job values. Specific tokens for each country would also make country-specific smart contracts and currencies independent of each other and would allow on implementation of smart contracts more specific for customary and cultural relations there. The token for India could trade differently than token for China. This would also allow interesting developments in exchanges of those tokens.

## 6. Identity

Generally users, upon establishing connection through the bitJob platform, will be able to connect in physical world or through some communication application like Skype, Hangouts, or Whatsapp. To ensure that services are provided in accordance with bitJob standards and users receiving those services are satisfied and safe, the system will rely on a reputation mechanism. Each service provider and service seeker will have the opportunity to provide feedback about the other party. Results of this feedback will be displayed on the member profile of each service provider and service seeker, and it will be publicly visible to members.

This setup also provides an opportunity to add insurance options to the platform, where members can give an option to purchase insurance that would guarantee them the recovery of tokens on spent services which prove to be poorly rendered or not provided according to an agreement.

## 7. Deposits and Withdrawals

bitJob entity will not be responsible directly for engaging in receiving or disbursement of fiat currency. Instead, local partners will be recommended where users can acquire cryptocurrencies like Ether or Bitcoin, and tokens can be exchanged to STU once this cryptocurrency has been sent to a special address on an Ethereum blockchain.

bitJob will give the option to do that conversion on bitJob platform in the future as we will integrate the 3rd party exchanges application.

bitJob entity is planning on reimbursing the fees of exchanging fiat money into STU as we are willing to supply incentive for users to insert funds into the ecosystem and purchase STU tokens. This decision must be based on the amount of available funds bitJob entity will store and raised upon the crowdFund, This incentive cannot be promised at this early stage, but it is important to publish it so the users will now how determent we are to implement STU Usage worldwide.

This incentive will obviously not be supplied for the opposite side of converting STU back into fiat.

The address will be the address of a smart contract that will understand how to allocate certain amount of tokens in exchange for cryptocurrency sent to it.

## 8. User Interface

The bitJob product will have two interface points: the web portal and the iOS/Android-native application.The website will have similar features to the mobile apps and will be accessible over any web browser. Upon accessing the website or mobile app, the user will be presented wit the following options:

- Join bitJob as service provider
- Join bitJob as service seeker
- Manage my account

Within the account, the user will be able to extend their options—able to become a service provider if they joined originally as a service seeker, or vice versa.

- Create service offer (if service provider)
- Create service request (if service seeker)
- Search for Service Requests. (if service provider)
- Search for Service Providers (if service seeker, based on categories and keywords)
- Bid on service request (if service provider)
- Bid on Service (if service seeker)
- Provide feedback and rate service seeker (if service provider)
- Provide feedback and rate service provider (if service seeker)
- Create conversation with other party
- View wallet and minting rewards

## 9. Credit Reputation

Individual "Credit Scoring" mechanism will be created to incorporate elements of service providers, service seekers, and service applicability to the platform (e.g., how service relates to addressing student problems and needs).

## 10. Fee Structure

bitJob fees will be inversely proportional to the amount of users on the platform. Fees can increase to dedicate funds and reward members contributing to the growth of the platform. A tiered bonus system will be designed and employed to reward early adopters and evangelists.

## 11. Minting / STU Token rewards

Participants of the platform will be able to earn tokens through activities benefiting the platform.

- Helping to register new members who provide service or use the service of another member, which will result in the creation of new tokens that will be deposited into account of contributing member.
- Providing a reputation score of another member, which will result the in creation of new tokens that will be deposited into account of the participant giving feedback.
- Engaging in an activity on the network that results in the exchange of payment, ,which will create new tokens in the system that will be deposited into the accounts of service providers.
- Offering support to other members by guiding them through the system and helping them establish their presence on the platform.
- Offering help to the community by supporting the creation of new options and by participating in the future enhancements of the platform.
- Running community forums and giving answers to general questions.
- Reviewing the activity of a member's platform and analyzing the validity/legality of their services.
- Participating in conflict resolution, through the gathering of facts and helping with establishing if there has been violation of rules or omission in the process.

# 12. Technical Description

bitJob is characterized by two key operational pillars: autonomy and decentralization.

Autonomy: The Ethereum platform allows for the creation of smart contracts that run business logic autonomously, and we will utilize these features for fast, secure, and reliable processing of the bitJob process that has been detailed. This will reduce operational costs compared to those currently found on existing online freelancing platforms.

Unlike existing centralized platforms and services, bitJob transactions will be publicly verifiable, viewable, self-operated, and not the subject to the risk of institutional processing. Our system is a finite state machine, and manual transactions are essentially unneeded.

## 12.1. Decentralization

Traditional online businesses with centralized structures are subject to hacking, strict financial regulations, and high overhead costs. The decentralization of bitJob—particularly for its transaction processing, auctions, contribution tracking, and distribution of funds—allows the elimination of payment processors, reduces the operational burden of regulation compliance, and reduces costs associated with inefficient accounting and duplication of functionality. In addition, it protects against organizational corruption such as fraud and embezzlement.

## 12.2. Handling of Bad Actors

Building on top of the Ethereum platform, bitJob is inherently decentralized. Smart contracts guarantee that no external parties can influence the transparent process for an extended period of time, for all transactions are verifiable. Any fault in the system will quickly become evident, and measures can be taken to eliminate bad actors from such influence, such as by building measures into the system that can disable accounts that abuse bitJob and freeze all associated funds.

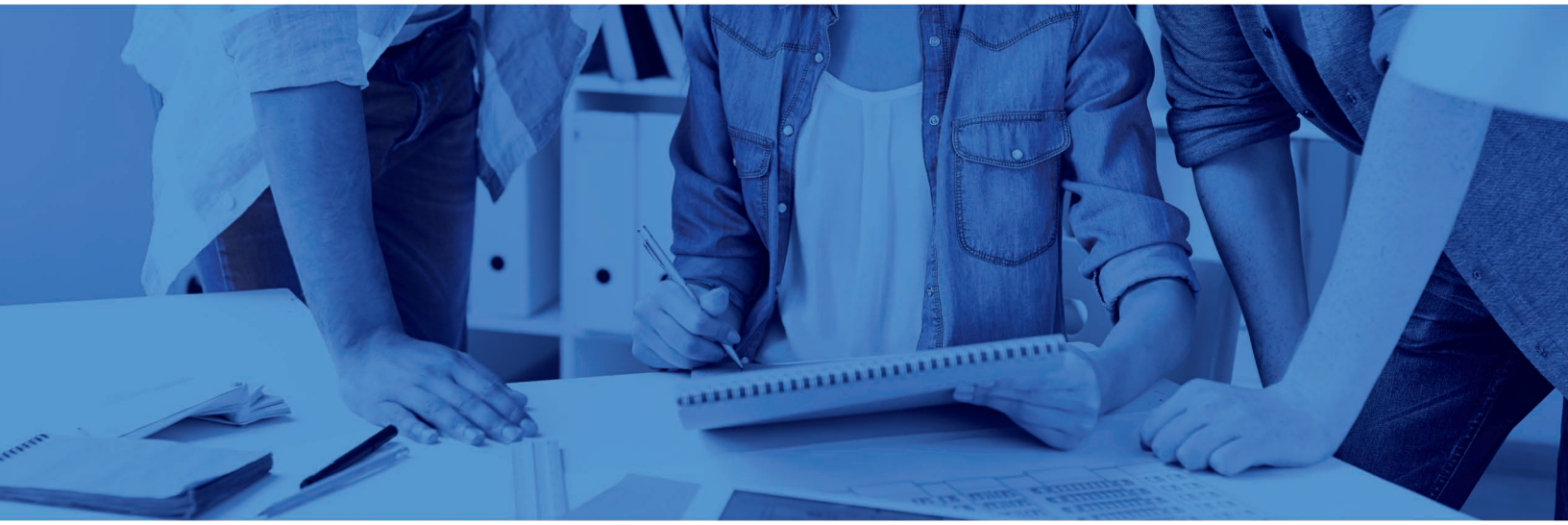
The system will be equipped with authentication and authorization logic as well as permission management.

## 12.3. Security

Security is given the highest priority. Smart contracts are responsible for handling the transfer of money, and the reputation system will be subjected to a comprehensive security audit prior to launching the platform on the testnet. We will hire experienced a security expert to validate our system's fraud-prevention measures and to evaluate system defenses from malicious attackers. In addition, we are planning to build protection mechanisms in the system to monitor all transactions and freeze suspicious activity and user accounts, to determine the weight of the exploit or attack or suspicious activity.

### 12.4. Sybil Attack Prevention

Because bitJob is community-based application and trust in it depends on a user reputation system, it is important that users who register are sufficiently verified before they are able to conduct activity within the network. So-called Sybil attacks, characterized by the creation of multiple anonymous accounts, should be largely mitigated by verification of student credentials. In addition, the system should be able to verify accounts by making checks against popular social networking sites or systems known for providing user verification or cell phone numbers, requiring two-way verification. In addition, all accounts should be funded with Ether before any activity is allowed on the network.



## 13. Release Time & Roadmap

- **Nov 2016 - Concept**
- **Dec 2016 - Research**
- **Feb 2017 - Whitepaper & Site**
- **Jul 2017 - Pre-sale announcement made.**
- **Aug 2017 - Pre-sale launch.**
- **Sep 2017 - bitJob STU CrowdFunding Campaign.**
- **Oct 2017 - Disbursement & Exchange listings**
- **Nov 2017 - Private Beta**
- **Q1 2018 - Beta Public release**
- **Q1 2018 - Open Platform for developers**
- **Q2 2018 - Launch & Further Dev.**

# 14. Risks, Challenges and Opportunities

## 14.1. Fiat-to- Crypto Fees

In order to use our platform, users must have cryptocurrencies prior to its use. Fees associated with buying and selling cryptocurrencies, as well as the limited options to exchange fiat money into cryptocurrency and back, can limit success of our business model. Only users who have an understanding of crypto world can be early adopters of our system.

The cost savings of using our network might be in question if you take into account the exchange fees one has to incur to enter and exit our platform.

As mentioned previously in this document, bitJob concept is to incentivize all the players in the ecosystem, so they would prefer to use STU rather than Fiat money. We will address it by offering several Win-Win solutions. For example, a new user that would like to exchange Fiat money into STU in order to use it on the marketplace, would not pay the Fiat-to- Crypto Fee. bitJob will absorb this cost. If the user would like to take money out of the STU ecosystem and exchange it into Fiat money, the user itself will pay the cost.

## 14.2. Low Levels of Cryptocurrency Ownership

Due to the fact that few people today own cryptocurrencies on a regular basis, initial growth of the network might be slow. Despite this, those who already have access to cryptocurrencies will create a loyal group of customers and will help with establishing a small but active community.

Blockchain mainstream adaptability is still far away. The most important thing is to register as much new users as we can into the marketplace, then we could educate them wisely with hands-on experience. After deep analysis & advices from top academic & blockchain figures, we came into conclusion that friendly faces like PayPal would help attracting users who might be intimidating by cryptocurrency, due to its' well known problems.

## 14.3. Regulatory Compliance

In order to avoid regulatory risk, our platform initially will not offer fiat-to- crypto and crypto-to-fiat conversion. This would require establishing itself as a legal currency exchange, which might be very costly, time consuming, and subject to various regulatory changes. At the same time, this will limit members' entry into the system, requiring them to go through several hoops to be able to enter our system.

bitJob main purpose it to leverage the lives of students worldwide. Therefore, the best legal and accounting professionals are on board, in order to protect bitJob foundation, its workers and users.

## 14.4. Malicious Users Might Undermine the System

There would be no legal recourse if malicious users had an intention to undermine the system by flooding it with illegitimate service offers or service use methods. The system needs to have such checkpoints in place that will deactivate malicious members at the earliest possibility and prevent significant damages.

bitJob will publish its Fraud prevention policy. The Policy will hold some actions and recommendations for the users to follow.

Some morally deficient people are exploiting the newbie freelancers' interests with fraud job offers, which ultimately lead to a frustration for the victim. However, if a freelancer takes some precautionary steps before starting to work, they can evade losing money.

## 14.5. bitJob Fraud prevention tools

- **Data Collection**

bitJob will Collect Data of their service providers. This data will be used to detect Fraud attempts at an early stage.

bitJob will collect information while the Service provider will access, browse, view or otherwise use the Site. In other words, when the service provider access the Site we are aware of your usage of the Site, and may gather, collect and record the information relating to such usage, including geo-location information, IP address, device and connection information, browser information and web-log information, and all communications recorded by Users through the Site. We will use that information to enhance user experience, personalize your browsing experience as well as monitor the Site for fraud and inappropriate content or behavior.

- **Reputation & Dispute center**

bitJob.io participants will have reputation assigned to them, to enable them to access remuneration appropriate to their skill level. The better the individual's reputation, based on previous bitJobs, the higher the price they will be able to command for an hour's work. bitJob will use their reputation and dispute mechanism to analyze each user ratings. Those ratings listed from users will be used to detect fraud attempts or unprofessional participants in the platform. This will eventually reduce the fraud attempts dramatically as the Reputation assigned to the users represent their service quality.

## 14.6. bitJob User recommendations

- **Read the Project Description Attentively**

Some newbie freelancers often apply for jobs without understanding the project description. Do not do it ever. Read the job posting first to last. Realize what the prospective client wants. Legitimate buyers would always make their requirements clear in the job description. They will mention the desired units of deliverables, work-hours, budgets and the payment structure.

- **Check the Client's Profile**

Not all of the clients with blank profiles are necessarily bad. Still, experts suggest being careful in dealing with them. A reliable client should have a payment method verified with the marketplace. Check the client's ratings and their feedback from the contractors. A good client should receive mostly great reviews and ratings.

- **Avoid Free Samples**

Most of the times, fraud buyers ask free sample works from the applicants. Some big freelancing marketplaces prohibit such demands. Providing a sample work is a crucial part of the recruitment process, because it helps the client to evaluate the candidates. However, they have to pay for it. Never agree to provide a free sample – some scammers are exploring the web to trick the newbie freelancers to get their works done at zero cost.

- **Payment Security**

bitJob marketplace will take a certain percentage from the employer payment, in order to get a secured payment mechanism. For newer clients, demand up-front payments or escrow protections for fixed priced jobs will be needed. bitJob marketplace will provide escrow systems to prevent payment disputes. Contracts will be set for in order to log job related activities and be paid automatically.

- **Report Scams**

You can detect a fraud job post just by reading its description, checking the client details and finally conversing with the prospective buyer. If you find it suspicious, feel free to report against the particular post and/or the client. This action by you will help to protect other freelancers from falling into a trap.

## 14.7. Future Opportunities

Awareness of cryptocurrencies is growing in the world in general, and our target audience is young people who are the earliest adopters of technologies and particularly Internet. We can therefore be optimistic and trust that, in time, we will have the best access to a prime group that is both advanced and sophisticated, fluent with the usage of cryptocurrencies in the world. Also our target audience is people who are already organized in communities, and due to the lack of funds, we are looking for ways of saving money. The student world and its word of mouth will become the main forces driving our network, as low-cost marketing. These students will gain a familiarity with our system that means they could continue to be the main users of bitJob even after our platform evolves to suit more types of work, not just what suits students.

Moreover, P2P and decentralized technologies hold many out-of- the-box concepts, which are yet to be discovered. One good example is P2P scholarships: a top bitJob student provider engaged with the same employer, delivering every time and satisfying the employer. This particular employer will have the opportunity to positively affect the student life even further, by offering him a scholarship or a student loan. bitJob WINWIN concept is the basis of our business model. Blockchain technology removes the barriers and gives us the freedom to give creative solutions for the benefit of everyone involved.

# 15. The Team

## 15.1. Founders

- **Dror Medalion**
  *Co-founder & CEO*
  A blockchain entrepreneur, An industrial Engineer and Enterprise Strategic Consultant specializing in implementation of ERP & BI systems and product design.
- **Bogdan Fiedur**
  *Co-founder & CTO*
  A blockchain technology enthusiast from Canada. A ĐApp, full-stack, smart contracts developer with over 20 years' experience as entrepreneur specializing in affiliate programs.
- **Aviad Gindi**
  *Co-founder & CFO*
  A Mutual Funds Manager at Halman-Aldobi Investment House in Israel.
  Entrepreneurship instructor & mentor. Aviad ignites the flame of our initiatives.
- **Elad Kofman**
  *Co-founder & CMO*
  A crypto investor and a Director of Marketing & Sales at AG Properties from Israel. Expert in marketing, media & consumer relationships. No one can spread the words like Elad!

## 15.2. Team Members

- **Edward Ruchevits**
  *Lead Back-end Đeveloper*
  Edward is an eternal student, developer and open source enthusiast. Contract Programmer at the Ethereum project, Back-end Developer at TallyStick project.
- **Micha Roon**
  *Ethereum Developer*
  Micha is gifted Blockchain Developer and Trainer. Working on the teams of SweetBridge protocol, SoarCoin and Validity Labs. Founder of Managination.
- **Alex Oberhouser**
  *Blockchain Technologist*
  Alex is a gifted Technologist, and Cambridge Blockchain LLC founder CTO & Tech Entrepreneur in the Blockchain & Identity space. Founder of Sigimera LTD.
- **Lior Zysman**
  *Law & Regulation*
  Lior is a corporate lawyer advising startups and investors in the blockchain space. Advising Wings.ai, aeternity, Matchpool & Smith+Crown
- **Yao-Chung Hu**
  *Community Manager- Asia*
  Founder of the Ethereum-Taipei Meetp-up, Yao Hu is an expert in Community engagement & Social services with a Masters Degree in Biotechnology and Entrepreneurship from New York University.
- **Anton Livaja**
  *Full stack Web Developer & Lingual expert*
  An expert in web development and emerging technologies with 6 years of experience varying across web applications, data mining, conversion optimization and blockchain.

- **Max Aigner**
  *Blockchain Developer*
  Developer for 3D, Blockchain and VR. Max is a C# JS Fullstack Developer with tremendous reusability of code, high quality unit testing and customer orientated design.
- **Patrick Mockridge**
  *Recruitment Strategist*
  Founder of ENGZIG.com and ECP24.Network. Patrick is A Chartered Chemical Engineer, MIChemE, Developer, Entrepreneur, And Lead Business Adviser.
- **Cyril Alvarez Adriaansen**
  *Web Designer*
  Full Stack JavaScript Developer & Crypto Trader. Cyril is an Exeptional IrocHack bootcamp Student, specifing in jQuery, NodeJS, MongoDB, HTML, CSS, Angular & React.
- **Yoel Lapscher**
  *bitJob Ambassador & Industrial Engineer*
  Yoel is a Business oriented engineer with a passion for connecting with people. Continuously leverages analytical and soft skills in order to successfully enable data- driven decisions.
- **David Mirynech**
  *bitJob Ambassador & Blockchain consultant*
  David is the regional head at Blockchain Education Network & a Consultant at MLG Blockchain Consulting.

## 15.3. Advisory Board

- **Prof. Bhagwan Chowdhry**
  *Professor of Finance & Director, UCLA*
  Professor of Finance at Faculty Director at UCLA Anderson School of Managment. Professor Bhagwan is also a Co-Founder at the Financial Access at Birth & an active Mentor at TellmeProf.com
- **Dr. Theodosis Mourouzis**
  *Cryptography Phd at UCL & CIIM Business School*
  Dr Theodosis Mourouzis is an Information security Expert, a Mathematics-Cryptology & data analytics professional at the Center for Blockchain at UCL and CIIM Business School, with strong interests in
- **Anish Mohammed**
  *Lead Security Architect, HSBC / Ripple Project*
  Anish is a Technologist with multidisciplinary background who Have worked as researcher in Security & Cryptography both in industry and academia, Anish Was also on the Advisory board of the glorious Ripple Project.
- **James Gonzalez**
  *Public Relations & Marketing Adviser*
  Co-Founder & CEO Crypto Consultant. Expert in Business Development, Director at the Blockchain Association of Canada (BAC) and a Executive Director and Unsung.

- **Alejandro Gómez de la Cruz Alcañiz**
  *Blockchain Legal Expert*
  Alejandro is a blockchain lawyer, Co-founder of ICOFunding.com. He also coordinates a multidisciplinary team at Grant Thornton Blockchain Lab. Passionate about regulation and governance in the decentralized space.
- **Aaron Schawrtz**
  *Academic Engagement & Business Adviser, BEN*
  Director of Engagement at Blockchain Education Network. Aaron is an innovative & passionate thought-leader, A Full Stack Developer with analytical perspective at Florida Blue.
- **Marloes Pomp**
  *Blockchain Projects - Dutch Government*
  Marloes loves building a firm connection between the government and new technologies. She's the Program leader of thirty blockchain projects within the Dutch Government.
  https://www.blockchainpilots.nl
- **Jason Cassidy**
  *Media & Community Engagement Adviser*
  Jason is a Media engagement expert, President at Crypto Consultant, Founder of Helium Pay & Adviser to the Ontario Securities Commission (OSC).
- **Brennan Bennett**
  *Blockchain System Informatics Mentor*
  Founder of the Blockchain Healthcare Review, Brennan is a world expert in Bio-Medical Informatics & Clinical applications on the Blockchain. Currently the COO at Qbrics, Inc.
- **Alexander Rugaev**
  *Campaign & strategic Adviser*
  Alex is a serial entrepreneur and one of the early blockchain supporters. As Industrial grade BTC and ETH Minor., Alex has 16 years of experience in e-commerce and online marketing.
  Founder of ICOPROMO.com

## 16. Appendix

Will be completed in the next version of the Whitepaper (V1.4)