

From: Jeremy Rubin [REDACTED]
Sent: Sunday, May 22, 2016 12:40:40 AM
Subject: Re:
To: "jeffrey E." <jeevacation@gmail.com>

Sorry for the delay -- I just finished my finals at MIT this week. Long email below, answering your question and an update on my activities.

I would like to go, yes. I am currently scheduling that week out as there is Joi's forbidden research, defcon, and a bitcoin conference I am submitting a paper to all that week. I talked with Vincenzo about going and he thought it was a good idea. Question: are these sorts of things I should send to you for reimbursement?

For a bit of an update on what I've been up to:

Thesis:

I've finished my M.Eng Thesis at MIT. I don't fully agree with the ideas I presented, but it was more of a formalization of a set of ideas. The core idea of my thesis is that decentralized utilization incentives are a good midpoint between Keynes and Hayek, and then I show a construction of them. The big application level take-aways from my thesis relate to spectrum allocation and solar energy. There's a lot of stuff you can skip, maybe just read chapters 1 & 3 (they're short) if you're interested.

<http://www.mit.edu/~jlrubin/public/pdfs/jeremyrubinthesis.pdf>

Current Projects:

Earlier this spring, I gave a talk (<https://medium.com/@jeremyrubin/improving-the-bitcoin-development-process-e37c3a8606e5#.jrily6ulp>) on starting a competition process to improve Bitcoin development. I have funds for it that I have accessible from MIT Bitcoin Project (I made a \$40 k allocation) but I'm unsure of how I should structure it -- if I should start a new nonprofit or just run reimbursement and fees through MIT. I think it probably makes sense to run it through MIT. I plan to have this ready around September.

I'm also working on a paper right now for <http://www.zurich.ibm.com/dccl/> which is a systematization of knowledge on off-blockchain technology in Bitcoin. Off chain systems offer one or more of the following (excerpted from forthcoming paper):

- 1. **Separated Guarantees**, the mechanism has guarantees are ensured mostly by a system or mechanism separated from the blockchain.*
- 2. **Hidden State**, the mechanism has state that does not need to be present the blockchain.*
- 3. **Efficiency Optimized**, the mechanism reduces the utilization of the blockchain compared to naive implementation of the problem the mechanism attempts to solve.*

For the next month or so I'm trying to decompress a bit from MIT and clear my mind a bit and wrap up various projects so that I'm ready to delve into new ideas. A couple things I've been toying with lately:

- Hard tech play, I have a new design for probabilistic payment schemes that could be interesting to implement. Will at least be a good paper.
- Starting a new stock exchange -- what can a ground up redesign of a stock exchange do/offer clients? Is it possible to tap the SF/Bay area distaste for NASDAQ. Could potentially rope in some friends with a lot of exchange dev experience to this.
- On either of the above, hiring first and asking questions later -- building a team and experience is important at this phase of the game, so maybe start working on one of these prepared to pivot
- Cuba infrastructure -- huge first-to-market advantage if I can build something in this untouched market and potential to have a lot of positive impact. Lot's of tourist money coming in.

Meetings:

Are there any events or things you'd like me to plan coming up?

Other:

I'm thinking about relocating to San Francisco shortly FYI, but also considering a bit of a travel circuit to learn more about other countries systems (I'm interested in what Korea does because they have very tight tech integration w/ samsung, Japan, Dubai, etc) -- is there anywhere you recommend particularly?



On Fri, May 20, 2016 at 8:37 AM, jeffrey E. <jeevacation@gmail.com> wrote:

will you go to defcon

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please note

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