

Class 25: Project Pitches

Schedule

Today! (8:29 pm): Project Progress Reports due (see [Class 23.](#))

Wednesday, 2 Dec and Monday 7 Dec: Final Project Presentations (see below).

Monday, 7 December (11:59pm): **Project Final Reports** (see below)

Today's Presentations

Understanding Mobile Bitcoin Wallet

Ziqi Liu

Visual Explorer for Addresses and their Relations

Ryan Anderson, Sam Prestwood, Luke Gessler

How Much is Bitcoin Worth: Pricing Differences Across Exchanges and Time

Quentin Moore

Analysis of the viability of Bitcoin replacing as a National Currency

Peter Leng

Beyond the Lightning Network - Exploring How to Scale Bitcoin

Muthu Chidambaram

Mixing with Miners

Morgan Locks

Bitcoin Block-size Options

Michael Parisi Presicce

Bitcoin Controversy and Conflicts of Interest

Jacob Freck

Understanding Takedowns

Gardner Fiveash

Detecting Selfish Mining in Bitcoin and Litecoin

Fangyang Cui

Geopolitical Strategy and Bitcoin

Eashan Kaw

Evaluating BlockCypher's Confidence Level

Dean Makovsky and Joseph Tobin and Kevin Zhao and Vignesh Kuppusamy

Pruning Nodes

Cyrus Malekpour

Divergence of Alt Coins and their Concurrent Developments

Cody Robertson

A Bandwidth Based “Proof of Work”

Alishan Hassan

Developing a Distributed Consensus Protocol

Alec Grieser

The Evolution of Bitcoin Script Interpreter

Acacia Dai

Project Final Presentations

The final project presentations will be in class on Wednesday, 2 December and Monday, 7 December. The presentation will count for approximately 50% of the grade for your final project.

The schedule of the presentations is below. Each team will have **5 + (N - 1) minutes** to present your project (where *N* is the number of team members; so a 4-person team will have 8 minutes). Your presentation should be well prepared and enthusiastically delivered!

You should send a link to your presentation (PDF, PowerPoint, or anything that works in Firefox browser) to ccc-staff before **11:59am** on the day you are scheduled to present. If your presentation includes a demo that's great, but it needs to be designed in a way that can be set up quickly and used effectively.

Wednesday, 2 December:

Developing a Distributed Consensus Protocol (Alec Grieser)

Blockchain Voting (Sugat Poudel, Austin J. Varshneya, Xhama Vyas)

Distributed Bitcoin Mixing with Interest (Carter Hall, Reid Bixler)

Beyond the Lightning Network - Exploring How to Scale Bitcoin (Muthu Chidambaram)

Mixing with Miners (Morgan Locks)

Pruning Nodes (Cyrus Malekpour)

Bitcoin Block-size Options (Michael Parisi Presicce)

Bitcoin Controversy and Conflicts of Interest (Jacob Freck)

Understanding Takedowns (Gardner Fiveash)

Detecting Selfish Mining in Bitcoin and Litecoin (Fangyang Cui)

Geopolitical Strategy and Bitcoin (Eashan Kaw)

Divergence of Alt Coins and their Concurrent Developments (Cody Robertson)

Monday, 7 December:

The Evolution of Bitcoin Script Interpreter (Acacia Dai)

A Bandwidth Based “Proof of Work” (Alishan Hassan)

Bitcoin at Point of Sale (Elizabeth Kukla)

Vending on Dark Net Markets (Collin Berman)

Analyzing the Feasibility of a Donation Accountability System in Bitcoin (Kienan Adams)

Understanding Mobile Bitcoin Wallet (Ziqi Liu)

Visual Explorer for Addresses and their Relations (Ryan Anderson, Sam Prestwood, Luke Gessler)

How Much is Bitcoin Worth: Pricing Differences Across Exchanges and Time (Quentin Moore)

Analysis of the viability of Bitcoin replacing as a National Currency (Peter Leng)

Evaluating BlockCypher's Confidence Level (Dean Makovsky and Joseph Tobin and Kevin Zhao and Vignesh Kuppusamy)

Project Final Reports

To submit your final report, send an email to ccc-staff@cs.virginia.edu with subject line **Project Report: Title** and cc-ing all of your team members. The official deadline for the final reports is **Monday, 7 December** (11:59pm), but extensions will be granted upon request so long as extending the deadline for this does not interfere problematically with your other courses and responsibilities.

The email should be plaintext containing:

1. A title for your project (this is the title I will use on the public page listing all the projects; add a * if it is different from the title currently listed on [Project](#)).
2. A one-sentence description of your project. This should be a clear, well-written sentence that will be enough for someone to understand what you did and why.
3. A URL that points to a publicly-viewable web page that describes your project. The linked page can (and probably should) contain links to other pages (e.g., a website that is your actual project or a github repo with your project code). For example, the link you send could be a link to <http://my-project-site.org/about.html> or <https://github.com/your-repo/README.md>, which is a page describing your project, as well as containing links to the main project site. Please try to put your project site somewhere that will not expire when you graduate from UVa, but that can survive forever.
4. Your project report, either as a PDF attachment, or a URL. Your project report should be a well-written and readable paper about your project. For most projects, this should include at least: (1) the motivation for your project, (2) background, including a description of related work (with references), (3) explanation of what you did, and (4) your results. For projects that do not involve building something, it may make more sense for it to be a more integrated report.

Discretionary Final Exams

By the end of this week, everyone should receive an email with your status in the class (including feedback on PS3).

The main message of this email will be guidance as to whether or not you should schedule a final exam. The main options are:

1. You're well positioned to get an **A** in the class. So long as you do a decent job on the project, you'll get an **A** and don't need to do the final exam.
2. You are approaching what you need to do to convince us you deserve an **A** in the class, but need do more. If your project is outstanding, that may be enough to make the case. If not, you'll have a last chance to do so by doing a final exam.
3. From what you've done so far, we're not convinced you understand cryptocurrencies well enough to earn an **A** in the class. You should plan on doing a final exam to convince us otherwise!

For students receiving options 1 or 2, we'll try to give feedback on your final projects as quickly as possible so you know whether or not a final exam will be recommended.

The final exam will be an oral exam where you will explain how bitcoin works, and then answer a few follow-up questions. These will be scheduled during the scheduled final exam time (Friday, 11 December 2-5pm) and other times.