Preparation for the Security & Decentralized Consensus Interviews
Outline

- Before the interview
- Speaking about yourself
- Sharing your code
- Capture the Flag (CTF)
- Asking questions
Before the interview
Before the Interview

- Deep dive on Insight
- Deep dive on security
- Know your interviewer
Speaking about yourself
Speaking about yourself

- Know thyself (or thy resume)
- Speak to what translates
- Keep it concise
Sharing your code
Showing
your
Code

- Give context for the problem
- Ready to share screen
- Start at a high-level
- Let the interviewer dive deep
Capture the Flag
Capture the Flag

- What's your thought process
- Humble isn't bad
- Let the interviewer dive deep
- What are next steps?
- CTFtime.org  fbCTF.com
- Github source and solutions

Facebook CTF Example

<table>
<thead>
<tr>
<th>Branch</th>
<th>New pull request</th>
<th>Create new file</th>
<th>Upload files</th>
<th>Find File</th>
<th>Clone or download</th>
</tr>
</thead>
<tbody>
<tr>
<td>master</td>
<td></td>
<td></td>
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</tbody>
</table>

The challenge source code and solutions for FBCTF 2019

<table>
<thead>
<tr>
<th>Commit</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial commit</td>
<td>crypto</td>
<td>5 days ago</td>
</tr>
<tr>
<td>Initial commit</td>
<td>misc</td>
<td>5 days ago</td>
</tr>
<tr>
<td>Initial commit</td>
<td>pwnables</td>
<td>5 days ago</td>
</tr>
<tr>
<td>Initial commit</td>
<td>reversing</td>
<td>5 days ago</td>
</tr>
<tr>
<td>Initial commit</td>
<td>web</td>
<td>5 days ago</td>
</tr>
<tr>
<td>Initial commit</td>
<td>LICENSE</td>
<td>5 days ago</td>
</tr>
<tr>
<td>Initial commit</td>
<td>README.md</td>
<td>5 days ago</td>
</tr>
</tbody>
</table>
Asking questions
Asking questions

- Feel free to ask logistics
- Prepare "content" questions
- Be specific to interview
- Mind the time
How to prepare yourself for Blockchain Engineering?

- Prepare a clean & updated LinkedIn profile

- **Domain knowledge**
  - Cryptography basics (Why use a hash? Why use a nonce?)
  - Mental models for incentive structures
  - Designing for adversarial environments
  - Understanding decentralization - benefits and drawbacks

- **Coding ability, learn one or two of these:**
  - Go
  - Rust
  - Solidity
  - C++
  - Python
  - Java/JavaScript

- Showcase coding and documentation skills with a **strong GitHub portfolio**
Building a strong portfolio

- Contribute to codebases of major cryptocurrencies
- Build decentralized applications and platforms
- Create open-source foundational libraries

Lightning Channel Optimizer
Darius Parvin

Identifies the optimal lightning node placement (channel connections) based on graph analysis of the network topology.

fellows.link/darius

DShard
Yaman Sharaf-Dabbagh

A dynamic sharding framework for the internet of things (IoT), using the IoTeX protocol.
How to prepare yourself for Security Engineering?

- Prepare a clean & updated LinkedIn profile

- **Domain knowledge**
  - Critical thinking/Problem solving.
  - Relevant areas of expertise: Networks, data analytics, compliance, cloud infrastructure, app development, operating systems.

- **Coding ability, learn one or two of these:**
  - Go
  - Rust
  - Javascript
  - C++
  - Python
  - Java

- Showcase coding and documentation skills with a strong GitHub portfolio
Building a strong portfolio

- Break systems
- Build applications and platforms

SlackGuard
Aashray Aggarwal
Security bot for Slack

Secure PenBox
Shasheen Bandodkar
A sandboxed cloud penetration testing environment that allows user test web application
Insight Fellows Programs

- Join a network of 3000 Insight alumni
- Short-term commitment, long-term gains
- Need-based scholarships
- Meet, interview, and join top companies

Programs available for full-time roles in Boston, Los Angeles, New York, San Francisco, Seattle, Toronto, and Remote.

Important Dates

<table>
<thead>
<tr>
<th>Session</th>
<th>Main Deadline</th>
<th>Start Date</th>
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</thead>
<tbody>
<tr>
<td>Fall 2020</td>
<td>July 20, 2020</td>
<td>Sept 14, 2020</td>
</tr>
</tbody>
</table>

Start your Application

- First Name
- Last Name
- Email

Start today

Admissions Process

1. Tell us about your background
2. Prepare to showcase your skills
3. 30-minute video call with our team

Most applicants receive an update within 3 weeks of the deadline.

Start your application today! Final Deadline: Jul 27th*
apply.insightfellows.com
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apply.insightfellows.com
Join the Insight Alumni Network of 2000 data scientists, engineers and product managers.

Start your application today! Final Deadline: Jul 27th*

apply.insightfellows.com
Yaman, Program Director, Security
yaman@insightfellows.com

Questions?

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