

Kolby Moroz Liebl

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EDUCATION

University of Alberta

Bachelor of Science in Computer Science

Edmonton, AB

Expected May 2025

- Relevant Coursework: Data Structures, Algorithms, Computer Architecture, Formal Systems and Logic

TECHNICAL SKILLS

Languages: C++, Python, RISC-V Assembly, Dart, Rust, Java, GoLang, JavaScript, SQL, HTML/CSS

Frameworks/Libraries: React, Flask, Flutter, SDL2, QT

Developer Tools: Unix/Linux, Git, JIRA, CMake, MongoDB

EXPERIENCE

Summer of Bitcoin

May 2022 – August 2022

Software Engineer Intern

Remote

- Implemented and designed import wallet keys GUI in QT increasing accessibility to non-technical users
- Coordinated with 10+ contributors on the review and approval of code changes
- Refactored RPC code reducing code duplication by 3000 lines

Ethereum Foundation

June 2021 – Nov 2021

Core Developer Apprentice

Remote

- Selected as one of 8 people into the Ethereum Core Developer Apprenticeship Program, worked on P2P Rust client
- Implemented **BitTorrent's** Micro Transport Protocol **uTP** allowing for 0 data loss **UDP** transfers over 508 bytes
- Integrated Windows Application Support increasing amount of prospect users from 25% to 100% of the market
- Overhauled **CI/unit** tests, leading to a 10% increase in code coverage, decreasing bug reports by 20%

PROJECTS

Game Boy Emulator | C++, SDL2, CMake

- Developed a Game Boy emulator from the ground up using only SDL2 and C++'s standard library
- Implemented Game Boy's Z80 based CPU including all 500 opcodes
- Tested and passed Blargg's Game Boy CPU tests ensuring CPU implementation accuracy

Bitcoin Dart Light-Client | Dart, C++, TCP Sockets

- Developed a P2P Bitcoin Client to allow mobile wallets to be built on the Flutter Framework
- Integrated core 9 message types built with expandable architecture allowing for application specific messages
- Designed BloC (Business Logic Component) interfaces for integrating library within mobile applications

Project GetFlags | Python, BeautifulSoup, requests, JSON, smtplib

- Developed an app with **Python**, **BeautifulSoup**, and **requests** that scrapes the web for UN/Embassy emails, then emailed a custom 1 of 10 template requesting a flag
- Scraped UN/Embassy emails off the web using **BeautifulSoup** building a DB of over 11870+ emails
- Sent emails utilizing smtplib via Gmail requesting a flag to over 190 countries

StakingReturns | Python, Flask, MySQL, HTML, CSS, JavaScript, Redis

- Developed a web app with **Python**, **Flask**, and **JavaScript** that finds the profitability on **PoS** cryptocurrencies
- Aggregated 100,000+ data points each for over 50 digital assets, used to calculate the ROI of staking
- Designed a RESTful API enabling institutional services to analyze the PoS market with rich data

Family Tree Maker | Python, SQLite

- Created a **Python** application which generates PDF/PNG's of your family tree utilizing digraphs
- Integrated SQLite as a lightweight key storage database to store family members relations and information