Charles Wilkin

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Experience

Software Engineer – [redacted] — Feb, 2022 – Present

[redacted] is a large FinTech company in a rapidly evolving industry.

- Developed microservices in Rust with a focus on security, performance and availability.
- Worked in an agile environment on projects that demanded excellent cross-department communication.
- Automated complex user onboarding flows enabling the company to expand into new countries.

Electrical Controls Engineer – *Universal Machine Company* — Jul, 2019 – Feb, 2022

UMC designs and builds custom machinery for industrial automation.

- Programmed PLCs and robotic arms for custom machinery.
- Automated onboard reporting to meet regulatory requirements.

Education

Electrical Engineering B.S. –*Pennsylvania State University* — May, 2020

Physics B.S. –*West Chester University* — May, 2020

Projects

Ministo – Monero mining GUI bundling XMRig, P2Pool and the monero daemon. — Nov, 2021 – Present

AcceptXMR – A multithreaded, asynchronous Monero payment gateway library. — Nov, 2021

Sunblock – Shield your eyes from the sun with a motorized sun shade using Haar cascades and OpenCV. — Dec, 2020

Gooba – An event-driven spiking neural simulator written in rust. — Dec, 2020

PocketLawyer – A hackathon team project to automatically detect, record and transcribe abusive language (won 2nd place). — Nov, 2020

Amplifier Optimizer – A genetic algorithm that does your circuit design homework. — Apr, 2019

The Inebriator – An automated bartender. — Mar, 2019

JudgementBot – A selfie-rating convolutional neural network. — Jan, 2019

Bro Server – A collection of self-hosted projects including XMPP, Bitwarden and Git servers. — Jan, 2019

Skills

Languages – Rust, C++, Python, JavaScript, MATLAB, VBA.

Databases – MySQL, SQLite, PostgreSQL, MSSQL.

Backend – Actix-Web, Flask.

Frontend – HTML5, CSS, Qt, WebAssembly.

Libraries – Serde, Tokio, NumPy, Pillow, OpenCV, Matplotlib.

Tools – CMake, GCC, Git, Cargo, Tensorflow, Linux Command Line.

Programming Since 2011 (11 Years)