

Samuel Roth

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Education

The Ohio State University.....Columbus, Ohio
Master of Science, Computer Science and Engineering.....August 2016 to May 2018

Ohio Northern University.....Ada, Ohio
Bachelor of Science, Computer Engineering.....August 2012 to May 2016

Technical Skills

- *Programming languages.* JavaScript, TypeScript, Python, C, C++, Rust, Java, Swift, SQL, SASS
- *Libraries and tooling.* Vue, React, React Native, Firebase, Backbone, Google Cloud, AWS, Flask, GraphQL, Git, PostgreSQL, TravisCI, Xcode, Android Studio, Anaconda, Jupyter Notebook

Experience

Jackson Tube Service, Inc.....Piqua, Ohio
Software Engineer.....May 2017 to Present

- Leading the development and deployment of kiosk software (NodeJS, React, Electron, Raspberry Pi) to help employees in our manufacturing plant quickly visualize and track customer orders.
- Built a RESTful API (Python, Flask) to interact with legacy systems and serve as a foundation for a new generation of software to be deployed across the company.

The Ohio State University.....Columbus, Ohio
Graduate Teaching Associate.....August 2016 to May 2018

- Delivered lectures, graded student assignments, led hands-on programming labs, held office hours, and proctored exams in the Computer Science and Engineering department.
- Helped coordinate course delivery across other Teaching Associates to approximately 500 undergraduate students. Personally managed sections of approx. 40 students each semester.

CMU Institute for Software Research.....Pittsburgh, Pennsylvania
Research Assistant.....May 2015 to September 2015

- Worked on the Usable Privacy Project, an interdisciplinary initiative aimed at helping people better understand how their personal information is collected and shared online.
- Led the implementation of Chrome browser extensions that presented information relating to privacy policies. Organized and led focus groups to gather feedback.

SAY Security Group USA.....Ada, Ohio
Software Engineering Intern.....January 2015 to May 2015

- Used the Qt C++ cross-platform application framework to develop an API for managing dynamic user interfaces on surveillance software used by law enforcement and private companies.

Selected Projects

- *Clique.* Social networking platform that requires a membership fee instead of compromising UX with advertisements and spam. Mobile applications built with React Native, backend built with TypeScript, Express, PostgreSQL, and AWS. Currently in private testing. ([Website](#))
- *Iron.* Iron is an approachable systems language that takes inspiration from Rust, Swift, and TypeScript. It's a work in progress, being built with Rust and LLVM. ([Website](#))
- *Error Path Explorer (EPEX).* Static analysis tool for Clang, enabling automatic detection of error-handling bugs in C programs. Presented at USENIX Security 2016. ([Paper](#), [PDF](#))