Michael Woods

mikeswoods at gmail

EDUCATION

Master of Science in Engineering, Computer and Information Science
University of Pennsylvania   Jan. 2012 – May 2015

Coursework in machine learning, computer vision, physically-based rendering,
and computational linguistics.

Bachelor of Science, Computer Science (cum laude)
Rutgers, the State University of New Jersey   Jan. 2003 – May 2007

WORK
EXPERIENCE

Blackfynn   Philadelphia, PA
Software Engineer   Nov. 2017 – Present

- Lead developer of the Blackfynn Agent, a native Rust client used to provides efficient, cross-platform access to various capabilities of the Blackfynn computing platform, such as uploading large datasets and streaming EEG timeseries data.

Intrinsic   San Francisco, CA
Software Engineer   Apr. 2016 – Nov. 2017

- Core engineer for the design and implementation of Intrinsic's flagship product, a secure, Node.js library based on user-authorable, declarative security policies derived from the architecture outlined in *Hails: Protecting Data Privacy in Untrusted Web Applications* [https://www.usenix.org/node/170829].

- Wrote tools to analyze the package dependency graph of a Javascript program, revealing useful metrics regarding the size and scope of its attack surface.

- Wrote a compiler and associated tooling to greatly speed up a previously labor-intensive task, mainly virtualizing the Node.js standard library as well as popular third-party libraries.

Yelp, Inc.   San Francisco, CA
Software Engineer   Aug. 2015 – Apr. 2016

- Implemented core consumer features and bug fixes on the Yelp Android and iOS mobile applications.

- Enhanced the way metrics were collected on both mobile and backend products to improve the data quality (location, hours of operation, etc.) of businesses listed on Yelp.

- Performed troubleshooting and contributed performance enhancements to Yelp's email sending infrastructure.

- Contributed enhancements and bug fixes for internal tools used by Yelp's team of community ambassadors.

Abramson Cancer Center, University of Pennsylvania   Philadelphia, PA
Application Developer   Nov. 2010 – May 2015

- Created the first iteration of the Abramson Cancer Center Applied Research Database (ACCARD), a unified clinical and research data aggregation platform that simplified the day-to-day data management and analysis tasks of cancer researchers.

- Wrote an interactive data exploration tool that allowed non-technical staff to create, save, and transform database queries and reports via a simple, responsive web interface.

AmeriFlex   Mt. Laurel, NJ
Software Developer   Apr. 2010 – Nov. 2010

- Created and maintained a number of in-house tools that automated many of the tedious and error-prone tasks conducted daily by business staff.

- Reverse engineered and subsequently rewrote an undocumented proprietary ACH payment processing system critical to the functioning and profitability of the business.

New Jersey State Parole Board   Trenton, NJ
Software Developer   June 2007 – Apr. 2010

- Developed a public-facing geographic parolee search tool with an integrated absconder tip submission feature. With the help of the public, a number of useful tips were received by the tool that led to the apprehension of fugitive parolees.

TECHNICAL SKILLS   Proficiency in Rust, Python, Java, Scala, Javascript (ES6)

Familiarity with `flow` + Typescript, `react`, `react-native`, `express`, `flask`, MySQL, PostgreSQL, graph databases, Redis, Hadoop, `scikit-learn`, `pandas`, git + Gerrit/GitHub, various ORMs

PROJECTS   http://mikeswoods.github.io
& PORTFOLIO
                   https://www.linkedin.com/in/michael-woods-82696953