Ivan Lin

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5577 Odana Rd Apt 216, Madison Wisconsin 53719

Education

Stony Brook University   Stony Brook, New York
  MS Computer Science · GPA: 3.69   Dec 2021
  BS Computer Science, Applied Mathematics and Statistics · GPA: 3.85   May 2020
POSTECH (2019) · Study Abroad   **Stuyvesant High School** (2016) · GPA: 94.68

Experience

Epic Systems | Verona, WI
Software Developer   June 2021 - Present
- Overhauled the underlying data structures and refactored key discharge workflows to better comply with interoperability standards and cut response times under high-loads by as much as 80%
- Streamlined the referrals process by introducing performant, bulk-action versions of existing operations to allow users to simultaneously manage dozens of communications
- Implemented new administrative tools that allowed external service providers to better inform discharge decisions by pushing up-to-date operational information to the hospital database

Whatsbusy | Remote
Full Stack Engineer Intern   May 2020 – August 2020
- Migrated the payment system to a multi-stage subscription model with Plaid and Stripe integrations to handle hundreds of thousands of dollars in payments from customers every month
- Designed data models and APIs to fetch and convert point-of-sale data from customers into useful analytics

Sweetist Co | New York, NY
Full Stack Software Developer Intern   June 2017 – August 2017
- Developed visualization tools to graph and compare years of shipping data using Ruby on Rails and Javascript

Academics

Stony Brook University | Stony Brook, NY
Student Researcher: Network Security and Privacy   July 2019 – December 2021
- Proposed decentralized and adaptive DNS services to improve user privacy and then implemented proofs-of-concepts by modifying Firefox and Knot Resolver
- Devised recurring automated web crawls over 150K domains from the top 50K websites, collecting terabytes of data with the goal of identifying optimal DNS TTL values
- Parsed network data from crawls to find meaningful trends and presented these as papers and workshop talks

[1] N P Hoang, I Lin, S Ghavamnia, M Polychronakis, "K-resolver: Towards Decentralizing Encrypted DNS Resolution", in NDSS MADWeb Workshop '20

[2] Ivan Lin. 2021. "The Privacy Impact of Perpetual DNS Caching". Master's thesis. Stony Brook University, Stony Brook, NY.

Teaching Assistant: Computer Networks   August 2018 – December 2018

Projects

DirectWriter | C   github.com/ivlin/DirectWriter
  C command line utility that allows for quick renaming of a large amount of files. Displays a directory as editable text in-terminal so that changes to filenames will be reflected in the real directory structure.
LangAnnotator | HTML, CSS, React.js   ivlin.github.io/LangAnnotator
  Tool for writing and annotating notes, aimed at those learning a foreign language. Styled and displayed with React.
Inequality Visualizer | HTML, CSS, Javascript, D3   ivlin.github.io/inequality_visualizer.html
  Dashboard of graphs showing a breakdown of data from the Opportunity Atlas. This highlights the impact of opportunity inequality in the United States.

Skills and Coursework

Skills by proficiency: Python, C, Web, Typescript, JavaScript, Git, Bash, C++/Java/C#, Go, React, SQL, LaTeX, Docker, MUMPS, Heroku, NodeJS
Graduate Courses: Systems Security, Networks, Distributed Systems, Network Security, Operating Systems