

Ivan Lin

ivlin112@gmail.com | (917) 680 - 2208 | ivlin.github.io | [github/ivlin](https://github.com/ivlin)

Education

Stony Brook University

Stony Brook, NY | Dec, 2021

MS Computer Science | GPA: 3.69

Teaching Assistant: Computer Networks

Coursework: Operating Systems; Computer Networks; System Security; Network Security; Distributed Systems

Stony Brook University

Stony Brook, NY | Dec, 2020

BS Computer Science, Applied Mathematics | GPA: 3.85

Work Experience

Epic Systems

Verona, WI | June 2021 – Present

Software Developer, Infrastructure Functional Area Lead

- Led a team of six developers in enhancing our product's communication infrastructure, prioritizing projects based on customer demand and our own long-term vision
- Refactored core data structures, workflows, and integrations to better align with industry interoperability standards, resulting in better maintainability and 80% response time reductions for loading key workflows in heaviest workloads
- Oversaw product performance and scalability by monitoring performance tests, assessing the scalability of new development, and designing projects to improve efficiency
- Developed tools for information sharing and communication management to address concerns cited by customers as key reasons for potential and past deinstallations

Stony Brook University

Stony Brook, NY | July 2019 – December 2021

Student Researcher: Network Security and Privacy

- Proposed decentralized and adaptive DNS services to improve user privacy, modifying Firefox and Knot Resolver to create proofs of concept
- Implemented recurring automated web crawls over 150K domains from the top 50K websites with Python and Selenium, collecting terabytes of DNS data to identify optimal TTL values
- Analyzed network data obtained from web crawls to identify meaningful trends and presented findings as papers and a workshop talk

[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.

WhatsBusy

Remote | May 2020 – Aug 2020

Full Stack Developer Intern

- Migrated the payment system to a multi-stage subscription model with Plaid and Stripe integrations to handle hundreds of thousands of dollars in monthly payments
- Designed data models and APIs to fetch and convert point-of-sale data from customers into useful analytics

Projects

DirectWriter

C

Command-line tool that simplifies the renaming of large numbers of files. By displaying a directory as editable text in the terminal, changes to filenames can be easily made and reflected in the actual directory structure when saving.

LangAnnotator

HTML, CSS, Typescript, React

Note taking app with an emphasis on allowing useful, visually distinct annotations.

Skills

Skills: Javascript, TypeScript, Java, C, C#, Python, SQL, Go

Web: React, HTML, CSS

Technology: Git, Bash, Docker, Unity, \LaTeX , MongoDB, Postgres