Henry Liu

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Education

University of Rochester

Aug 2022 - May 2026

Bachelor of Science, Computer Science; GPA 3.75

Rochester, NY

Involvements: RocLab Backend Developer, DSA Teaching Assistant & Workshop Instructor, SASE Career Mentor, TLC Tutor Courses: Computer Architecture, Compiler Design, Software Collaboration & Design, Artificial Intelligence, Data Mining, Theory of Computation, Data Structures and Algorithms, Object Oriented Programming, AR & VR Development

Experience

NBCUniversal

Jun 2023 - Aug 2023

Software Engineer Intern

New York City, NY

- Integrated project management software with the GitLab API which led to increased story-to-PR workflow efficiency
- · Developed a timeline view highly requested by PMs to effectively visualize sprint progress and developer capacity
- Conducted department-wide research on developer workflow enhancements and presented multiple solutions and implementations to senior management

JPMorgan Chase

Jul 2022 - Aug 2022

Software Engineer Intern

Jersey City, NJ

- · Implemented a recommendation feature for a regulatory compliance library used by 300 corporate lawyers
- Leveraged Elasticsearch to perform queries on a database of 15 million indexed citations using the tf-idf algorithm
- · Designed a proof-of-concept architecture diagram and showcased the final product to multiple stakeholders

Snapbrillia

Jul 2021 - Sep 2021

Software Engineer Intern San Francisco, CA

- Developed a take-home coding assessment platform that integrates candidate performance metrics with HR software
- · Revamped site deployment strategies after alpha launch production failure, enhancing reliability and performance
- Spearheaded an initiative to refactor the code base, standardize dependencies, and create automation scripts

Projects

Angular Initializer | Angular, TypeScript, Fastify, Node.js

- · Designed a developer productivity tool to auto-generate Angular starter templates using Schematics CLI
- Built a fullstack application featuring an Angular frontend for template customization and NPM registry integration, and a Fastify backend to generate and deliver templates as zip files

Gitty Rust, Clap, Hashing, Cargo

- Built core Git operations from scratch, employing SHA-1 hashing to ensure data integrity and storage efficiency
- Implemented the Myers Diff algorithm from scratch to efficiently compute file line changes

Nearvents | Angular, TypeScript, Ionic, Firebase

- Led the development of a cross-platform event management app with real-time updates powered by Cloud Firestore
- Implemented a location-based social media feed recommendation system using Capacitor Geolocation API

Recyclopedia | React, Redux, Next.js, MongoDB

- · Collaborated with a team of 4 to develop a fullstack community blog site for an environmental organization
- · Optimized site performance by reducing load time and database requests through Next.js static site generation

Skills

Programming Languages: JavaScript, Rust, Python, Java, C, C++, SQL, TypeScript, HTML, CSS

Frameworks: React, Angular, Next.js, Express.js, Spring Boot, React Native, Ionic **Technologies:** PostgreSQL, MongoDB, Firebase, RESTful APIs, GraphQL, Git