

Shawn Liu

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PROFESSIONAL SUMMARY

Highly motivated and adaptable software engineer specializing in fullstack application development with a strong aptitude in systematic critical thinking. Seeking opportunities to apply my programming and collaboration skills to deliver industry-leading software with a growth-oriented team.

EDUCATION

Carnegie Mellon University

Bachelor of Science in Physics and Computer Science

Pittsburgh, PA

2017 - 2021

PROFESSIONAL EXPERIENCE

- **Omnicell, Inc.** **Santa Clara, CA**
Engineer I, Software *December 2021 - Present*
 - **Web Development:** Implemented an interactive web app and robust backend service supporting large-scale routing of pharmaceutical drugs in health networks constituting up to 200 national hospitals.
 - **Inventory Management:** Developed a medication management software that automates a vertical storage solution maximizing inventory capacity; software generated an additional \$44.2M of revenue in 2023.
 - **UI/UX Design:** Collaborated with hardware and UI/UX teams to create user-friendly guided interfaces for medication dispensing tools, reducing prescription process time by 25% and nursing errors by 75%.
 - **Internal Support:** Built internal tool using React to automatically generate and scan item barcodes for QA testing, expediting system hardening and reducing regression test work every quarter.
- **Omnicell, Inc.** **Cranberry Township, PA**
Software Test Engineer Intern *May 2021 - August 2021*
 - **Fullstack Application:** Designed and implemented a standalone simulation software that enables developers and QA engineers to test hardware communication while working remotely.
 - **Test Automation:** Utilized Ranorex to write automated UI tests that verify the simulator's integration with existing inventory management software, ensuring alignment with test-driven development practices.
 - **Web App Testing:** Wrote Cypress tests for web application's integration with hospital servers, enabling timely bug fixes and bringing automated test code coverage up to 80%.
- **Hitachi ABB Powergrids** **San Jose, CA**
Software Process Management Intern *May 2020 - August 2020*
 - **Workflow Management:** Utilized a value-based model to identify resource bottlenecks in software development process in preparation for company merge with Hitachi, and proposed optimizations to product directors.
 - **Agile Methodologies:** Created a mapping and documented workflow for the transition to a customer-oriented Agile development process by the Powergrids R&D team.
 - **Rule-Based Systems:** Researched the usage of rule-based software systems in automating decision-making and business logic, implemented by the R&D team since Fall 2020.

PROJECTS

- **Distributed Bitcoin Miner** *Fall 2021*
<https://github.com/shawn8913/15440-P1>
 - **Protocol Design:** Built a robust server-client system in Golang using Live Sequence Protocol (LSP), ensuring reliable communication by adding functionality to UDP, including epoch events and checksums.
 - **Distributed Application:** Used the LSP implementation to create a simple distributed proof-of-work Bitcoin miner with scheduling and error handling.

TECHNICAL SKILLS

- **Programming Languages:** C#, Python, Typescript, HTML/CSS, SQL
- **Frameworks and Libraries:** REST, GraphQL, Angular, React, Cypress, Jest
- **Tools:** Git, Bitbucket, Linux, NPM, Jira