Allen Shen

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EDUCATION

University of Michigan, Ann Arbor   Expected Graduation: May 2025
B.S. in Computer Science   GPA: 3.63/4.0
Clubs: Michigan Hackers, Club Tennis (External Coordinator)

RELEVANT COURSEWORK

Software Engineering, Computer Security, Web Systems, Database Management Systems, Human-Centered Software, Foundations of Computer Science, Discrete Math, Computer Organization, Data Structures and Algorithms, Linear Algebra

EXPERIENCE

Annaly Capital Management   September 2024 - Present
Full-Stack Developer, Fall Co-Op   New York, NY
- Engineered a price alert system using Python and Flask, featuring a RESTful API endpoint triggered daily by a cron job to scan financial databases for stale marks and dispatch immediate email alerts, saving 30+ min of manual effort daily
- Optimized dynamic UI features using React Redux and JavaScript, enhancing client-side functionality and data interaction with Microsoft SQL Server, which reduced page load time by over 30%
- Implemented testing strategies encompassing unit, integration, and end-to-end testing, while creating comprehensive technical documentation and user guides, ensuring high-quality software deliverables and effective support for end-users

IBM (PrestoDB)   May 2024 - Aug 2024
Back-End Developer, Internship   San Jose, CA
- Integrated the ClickBench big data benchmark suite into PrestoDB's Jenkins CI/CD pipelines, utilizing the Pbench performance benchmarking tool, and submitted compiled results to the open-source ClickBench repository
- Developed a new comparison feature in Golang that efficiently compares files between directories using customizable regex patterns, generating unified diffs, and created comprehensive documentation to facilitate user adoption and understanding
- Led an advanced technical workshop on Presto C++ for over 50 participants, featuring hands-on exercises in Docker-based cluster deployment and comparative benchmarking across different operating systems and environments
- Created docker images and docker-compose test suite files for open-source Presto migration to newer JDK version

UPS   Jun 2023 - Aug 2023
DevOps Engineer, Internship   Mahwah, NJ
- Created and deployed Ansible playbooks automating cloud and user management, streamlining processes by 95%
- Collaborated with cross-functional teams to swiftly identify and implement solutions, resolving connectivity issues between Exadata and Oracle Cloud endpoints ensuring seamless data flow and uninterrupted operations
- Placed in the top 5% of teams in the annual hackathon and pitched the project to senior management

PROJECTS

Tennis Elo Rating System   git.io/Tennis-Elo
Individual - (C++)
- Applied Elo rating system fundamentals to build practical tennis ranking system for any size group
- Designed for club tennis tryouts to eliminate bias and fairly rank players solely based off match data

Collaborative Technical Forum   git.io/forum
Group Project - (HTML, CSS, JavaScript, PHP, MySQL)
- Implemented an online forum with skill-matching capabilities to facilitate knowledge sharing and problem-solving
- Created a tag-based system to categorize posts and users to help identifying relevant experts within the UPS community

ItineraryGen+
Individual - (React, JavaScript, GPT-3.5 Turbo, Django)
- Utilized the OpenAI and Yelp APIs to recommend destinations and activities based on user preferences and reviews.
- Efficiently plans travel schedules, taking into account user-inputted values of budget, date, age, party size, and more.

Instagram Clone
Group Project - (Python, JavaScript, Flask, React, SQL)
- Developed an Instagram clone emphasizing client-side dynamics with JavaScript, AJAX, and a tailored REST API.
- Integrated UX enhancements like instant actions and infinite scroll. Optimized and deployed the application on AWS, leveraging tools such as Cypress for front-end testing and Prettier for code formatting.

Productivity Chrome Extension
Individual - (React, JavaScript, HTML/CSS, jQuery)
- Developed a Chrome extension to create accessible tools including a URL tracker, notepad, timer, and stopwatch
- Utilized Chrome storage and runtime APIs for data persistence and managing background scripts

TECHNICAL SKILLS

Programming languages: C/C++, Python, Java, SQL, HTML/CSS, Assembly, LaTeX, JavaScript, Typescript, R, Golang
Frameworks/Libraries/Tools: AWS, Node, React, Flask, Git, Linux, MongoDB, Django, Hadoop, Docker, Jenkins, Bamboo