Tszfai Choy

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Education

Rochester Institute of Technology – Bachelor of Science in Software Engineering, GPA: 3.5   Expected May 2026

Technical Skills

Languages: C++, Python, Java, JavaScript, TypeScript, C, SQL, HTML/CSS
Frameworks/Libraries: React, React Native, Angular, Spring, Tailwind, Bootstrap, Node, Express, SASS
Tools: Arduino, GitHub, Docker, PostgreSQL, Git, GitLab, Jenkins, Karma, Jest, Tableau, Jira, Unix/Linux

Experience

Software Engineering Co-op, Johnson and Johnson – Raritan, NJ   June 2024 – Present
- Automated CI/CD pipelines with Jenkins, ensuring fast, reliable deployments
- Ensured 100% test coverage with Jest, React Testing Library, and Karma, ensuring zero critical production bugs and significantly enhancing code reliability
- Attended daily Scrum standups providing updates on development progress, identifying blockers and communicating with product owners
- Contributed to the development of an executive management portal using JavaScript, Lit, and Billboard.js, significantly enhancing data visualization and supporting informed decision-making for leadership
- Engineered a scalable internal data platform using React, Node.js, and PostgreSQL, migrating from a data lake to achieve 100x faster query performance and streamlined data accessibility to 300k+ assets for internal users

Course Assistant, Rochester Institute of Technology – Rochester, NY   September 2023 – May 2024
- Hosted weekly workshops and guided 30 students through Java and Python, ensuring a 100% course pass rate

Frontend Technical Lead , International Socioeconomics Laboratory – Remote   January 2021 - February 2022
- Led a 9-member team in developing responsive websites using HTML, CSS, and JavaScript, applying Agile methodologies to maximize project efficiency and deliver high-quality results for a nonprofit organization
- Coordinated with UX/UI designers to ensure the technical feasibility of designs, while also advocating for user-centric approaches in all project phases

Tech Blogger, STEM From Scratch – Remote   March 2021 - March 2022
- Wrote 30+ articles on Data Structures and Algorithms, reaching an audience of over 1,000 monthly readers

Frontend Developer, Finxerunt Policy Institute – Remote   June 2020 - January 2021
- Developed a responsive website with HTML, CSS, and JavaScript, driving an average of 200 monthly visitors and advancing the organization's online presence and mission
- Successfully implemented a donations page, which resulted in a fundraising achievement of over $200

Personal Projects

Tetris Opener Bot   github.com/TChoy04/tetris-opener-bot
- Implemented image recognition to identify Tetris pieces, optimizing placement strategies via automated analysis
- Engineered an algorithm that efficiently determines optimal placement for Tetris pieces for the first three bags handling 128 billion possible configurations

Competitive Programming Solutions   github.com/TChoy04/competitive-programming
- Solved 500+ and documented 200+ competitive programming problems across various platforms such as CodeForces, AtCoder, CodeChef, LeetCode, Google Kick Start and Code Jam

Cryptocurrency Tracker   tszfai.dev/crypton
- Built a real-time cryptocurrency tracker using React and API integration for ranked data presentation

Happy Worm   tszfai.dev/worm
- Developed a high-performance snake game in React, featuring dynamic colors and score tracking