Edward J Tan

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U.S. Citizen

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LinkedIn | GitHub | Portfolio | Blog

Rochester, NY

EDUCATION

University of Rochester   Rochester, NY

BS in Computer Science; BS in Business Information Systems   *Sep 2021 – May 2025*

EXPERIENCE

GTSP Group   Santa Clara, CA

Software Developer Intern   *Dec 2024 – Feb 2025*

- Implemented hybrid REST APIs and gRPC for real-time audio AI platform, reducing streaming latency by 35%
- Developed animations with React and Three.js in collaboration with UI/UX designers, applying performance optimization with lazy loading, reducing bounce rate by 20%
- Enhanced developer documentation infrastructure using Zola static site generator, collaborating with agile development teams to implement automated deployment and rapid documentation updates
- Streamlined GitHub Actions CI/CD pipelines with QA teams, implementing automated test coverage analysis and improving coverage from 95% to 99%

Peking University   Remote

Research Assistant   *May 2024 – Aug 2024*

- Prototyped 3D model rendering tool in React and WebGL for Computer Vision research through close collaboration with researchers, enabling research outcome visualization at 60+ FPS
- Developed image gallery component in open source codebase with base64 streaming, allowing researchers to trace 3D model origins through source image visualization
- Accelerated 3D data transmission using msgpack compression over WebSocket, achieving 45% bandwidth reduction for large-scale point cloud and mesh datasets

PROJECTS

Meju – Meal Order System   *Source Code ↗*

- Designed meal ordering application using Next.js and PostgreSQL to automate meal selection, recipe finding, and shopping list planning with OCR import, saving users over 2 hours per week

LeetTrack – LeetCode Review Platform   *Demo ↗ | Source Code ↗*

- Engineered question review platform addressing LeetCode's missing spaced repetition feature using Next.js, FastAPI, and PostgreSQL, deployed on Vercel and AWS, growing to 140+ users

RustDrop – Secure LAN File Sharing Service   *Source Code ↗*

- Built encrypted cross-platform file sharing service using Rust, clap, and Axum with CLI and web interfaces, enabling secure transfer of sensitive files across Linux, MacOS, and iOS

Hecto – TUI Text Editor   *Source Code ↗*

- Developed terminal-based text editor from scratch using Rust, implementing cursor movement, file I/O operations, syntax highlighting, and search functionality with raw terminal control

SKILLS

Languages: TypeScript, JavaScript, Rust, Python, Java, SQL, Bash/Shell, HTML/CSS

Frontend & Backend: React, Next.js, FastAPI, Django, Node.js, WebGL, TailwindCSS, REST API, Express.js

Database & Infrastructure: PostgreSQL, MongoDB, Redis, GraphQL, WebSocket, Docker, Kubernetes, Microservices

DevOps & Monitoring: Linux, Git, CI/CD, Jest, AWS (EC2, RDS, S3), Vercel, Nginx, Prometheus, Grafana