

Edward Jiazhen Tan

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SUMMARY

CS graduate from University of Rochester skilled in TypeScript, JavaScript, Java, and Python with experience building full-stack applications using React, Spring Boot, and AWS

EDUCATION

University of Rochester

Bachelor's of Science, Computer Science; Business Information Systems

Rochester, NY

Sep 2021 — May 2025

- Major GPA: 3.9/4.0
- Relevant Coursework: Data Structures, Introduction to Java, Web Programming, iOS Programming, Computer Architecture, Advanced Algorithms, Programming Language Design, Artificial Intelligence, Deep Learning

WORK EXPERIENCE

Software Developer Intern

Peking University

May 2024 — Aug 2024

Remote

- Integrated open-source JavaScript Gaussian splatting renderer into TypeScript React application, writing custom type definitions and resolving build system incompatibilities between ES modules and React tooling
- Developed WebSocket prototype transmitting base64-encoded images from Python backend to frontend, enabling researchers to view source training data alongside 3D reconstructions
- Extended platform to support .ply, .splat, and .ksplat file formats, enabling team to visualize outputs from multiple 3D reconstruction methods without manual file conversion
- Authored technical documentation covering type definitions, renderer integration, and WebSocket API specifications to facilitate future development

PROJECTS

LeetTrack

leettrack.app

- Developed LeetCode practice tracker with spaced repetition scheduling and personalized study recommendations
- Integrated LeetCode GraphQL API to fetch real-time problem data and sync user progress across algorithmic challenges
- Deployed Next.js application with GitHub OAuth authentication and PostgreSQL database on Vercel and Neon

AI Riot Stats Analyzer

github.com/EdwardJiazhenTan/riot-analyzer

- Built gaming analytics platform generating AI-powered match reports by Riot Games API data and Claude API
- Architected Spring Boot REST API with PostgreSQL and Redis caching, processing 10,000+ frame-level match events into structured data for LLM analysis while reducing repeated API calls by 50%
- Deployed React frontend on Vercel and Spring Boot backend on AWS EC2 with automated GitHub CI/CD pipeline

Git Clone in Rust

github.com/EdwardJiazhenTan/git

- Reimplemented Git version control system in Rust supporting: init, add, commit, branch, log, checkout, and merge
- Explored Git internals including object storage, tree structures, and SHA-1 hashing for content-addressed file systems
- Published educational blog series at blog.edwardjtan.com explaining Git's data structures and version control algorithms

SKILLS

- **Languages:** TypeScript, JavaScript, Python, Java, Rust, HTML/CSS, SQL, Bash
- **Frameworks & Libraries:** React, Next.js, Three.js, Spring Boot, Node.js, Flask, Tailwind CSS, WebGL
- **Tools:** PostgreSQL, Redis, Docker, Git, AWS (EC2, S3), Vercel, CI/CD, REST APIs, GraphQL, WebSocket, Linux