# RICKY ZHANG

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## EDUCATION

**New York University** **Expected Dec 2025**

*B.S. in Computer Science – GPA: 3.8 - 3x Dean's List* *New York, NY*

- **Relevant Coursework:** Data Structures & Algorithms, Object Oriented Programming, Intro to Databases, Web & Full Stack Development, Computer Architecture, Operating Systems, Design & Analysis of Algorithms, Computer Networking, Computer Security, Software Engineering, Network Security, Agile Software Development & DevOps

## EXPERIENCE

**Software Engineer Intern @ Pupil** **Mar 2024 – May 2024**

*TypeScript, JavaScript, SvelteKit, React Native, GSAP* *New York, NY*

- Developed responsive UI components for the landing page using SvelteKit and Tailwind CSS, improving mobile viewport adaptability and reducing CSS bundle size by 158KB
- Implemented scroll-triggered animations using GSAP, creating dynamic service feature reveals and parallax effects that increased average time spent on landing page by 12.8 seconds
- Optimized React Native API calls using memoization and debounce techniques, reducing data fetching time by 200ms

**IT Operations Intern @ Con Edison** **Jun 2023 – Jan 2024**

*SQL, SharePoint, Oracle SQL Developer* *New York, NY*

- Implemented an SQL stored procedure to analyze over 400 weekly maintenance tasks, identifying potential crew scheduling conflicts and reducing double-bookings by 6%
- Created a SharePoint form for shift summaries with custom permission controls, integrating Microsoft Power Automate to send Outlook notifications, resulting in a 30% decrease in time spent accessing shift information
- Performed time audits for take-home vehicle logs, ensuring precise overtime reporting and reducing overtime costs

**Computer Science Tutor @ New York University** **Sep 2022 – Jun 2023**

*Python* *New York, NY*

- Provided one-to-one tutoring to up to 5 undergraduate students per week in computer science, specializing in Python programming and data structures
- Remotely monitored and evaluated academic performance of students

## PROJECTS

**Shadowdash** | *C++, Python, Ninja Build System, CircleCI*

- Developed a high-performance build system that outperforms Ninja by replacing interpreted syntax with compiled C++, reducing build times by up to 7% for large-scale projects like LLVM ( 1M LOC)
- Engineered a build manifest converter in Python to transform over 500 existing Ninja build files to the new C++ format, enabling efficient testing and benchmarking against Ninja
- Implemented CI/CD pipeline using CircleCI, automating code compilation and performance benchmarking, enabling continuous comparison with Ninja across different project scales

**SoHo Shopper** | *React, Vite, Express, TypeScript, Tailwind, MongoDB, Docker, GitHub Actions, Google Maps API*

- Collaborated in a Scrum team to develop a mobile-responsive web application that optimizes shopping routes in SoHo, NYC, integrating data from 500+ stores via Google Places API and reducing average trip planning time by 70%
- Implemented a pathfinding algorithm inspired by the Traveling Salesman Problem, processing up to 20 user-selected stores to suggest the most efficient shopping path, reducing estimated walking distance by an average of 15%
- Implemented user authentication and personalized store list saving functionality, allowing users to create and manage up to 20 shopping itineraries with an average load time of under 500ms

**Politigram** | *JavaScript, Next.js, Tailwind, Vercel, MongoDB, BERT, Google Cloud Vision*

- Launched a pioneering social media web application filtering content based on a political spectrum slider
- Trained a machine learning model to evaluate images using the Google Cloud Vision API, reaching an accuracy of 64% within 48 hours

## SKILLS

**Languages**: TypeScript, JavaScript, Java, C++, C, Python, SQL, Bash, x86, HTML/CSS
**Technologies**: Git, Docker, GitHub Actions, Next.js, SvelteKit, React Native, Nodejs, Express, Flask, PostgreSQL, MySQL, Redis, MongoDB, AWS (S3, DynamoDB, RDS), Firebase, Redux, Tailwind, Selenium, Pandas, Spring Boot (beginner level)