RICKY ZHANG

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EDUCATION

New York University   **Expected May 2026**
B.S. in Computer Science – GPA: 3.8   *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 using SvelteKit and Tailwind, 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
- Optimized React Native API calls using React Query hooks, reducing First Contentful Paint (FCP) from 1.2 to 0.4s
- Built lazy loading system with progressive thumbnails, reducing memory usage and initial load time by 45%

Computer Operations Intern @ Con Edison   **Jun 2023 – Jan 2024**
SQL, SharePoint, Python   *New York, NY*
- Developed SQL/Python solution to detect scheduling conflicts across 400+ weekly appointments and reduce scheduling errors by 16%
- Created a SharePoint-based shift summary system with Power Apps form customization and automated Teams/Outlook notifications
- Developed Excel macros to automate formatting of crew and vehicle utilization reports, reducing manual processing time by 70%
- 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-on-one tutoring to 15 undergraduate students per week in Data Structures and Python programming

PROJECTS

AMC SeatAlert | *JavaScript, Python, FastAPI, SQLAlchemy, PostgreSQL, Chrome Extensions API, AWS*
- Built a Chrome extension using Manifest V3 and automated system that notifies users when their desired movie theater seats become available at AMC Theatres
- Implemented RESTful API using FastAPI to handle notification subscriptions, managing seat preferences in PostgreSQL
- Created automated web scraping service on AWS EC2 that monitors seat availability at 5-minute intervals with immediate email notifications

SoHo Shopper | *React, TypeScript, Tailwind, Express, MongoDB, Docker, GitHub Actions, AWS, DigitalOcean*
- Developed a responsive full-stack web application that optimizes shopping routes, integrating data from 300+ stores and reducing average trip planning time by 70%
- Established CI/CD pipeline with GitHub Actions and Docker in a Scrum team environment, deploying containerized application on DigitalOcean
- Engineered a serverless architecture using AWS Lambda and EventBridge to automate weekly store data updates for 300+ stores in a cloud MongoDB database

NBA Courtside | *Next.js, TypeScript, Tailwind, Spring Boot, WebSocket, Python, PostgreSQL, Docker, GitHub Actions, AWS*
- Developed a web application for tracking real-time NBA statistics and simulating sports betting with virtual currency
- Implemented real-time odds updates using WebSocket communication, reducing data latency from 90s to <2s compared to HTTP polling
- Designed secure RESTful API using Spring Boot with Hibernate JPA and Spring Security for JWT authentication

SKILLS

Languages: TypeScript, JavaScript, Java, C++, C, Python, SQL, Bash, x86, HTML/CSS
Technologies: Git, Docker, GitHub Actions, CircleCI, Next.js, SvelteKit, React Native, Nodejs, Express, Flask, Spring Boot, PostgreSQL, MySQL, Oracle SQL, Redis, MongoDB, AWS, DigitalOcean, Firebase, Redux, Tailwind, Selenium, Pandas