

Ryan Zhao

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EDUCATION

Emory University

B.A. in Computer Science

Atlanta, GA

August 2021 – May 2024

- Courses: Data Structures and Algorithms, Database Systems, Artificial Intelligence, Machine Learning, Linear Algebra, Discrete Mathematics, Algorithm Analysis, Operating Systems, ML Applications

University of Washington

Seattle, WA

September 2020 - June 2021

WORK EXPERIENCE

Expedia Group

Software Development Engineer Intern

Seattle, WA

May 2023 – July 2023

- Developed and deployed an automated waiver processing tool for Expedia Marketplace Insights, slashing processing time from 3-5 days to just 1 day, resulting in over 10 hours of weekly saved manual engineering effort.
- Leveraged React for front-end design and Java for backend API development with Okta authentication integration, enabling multi-waiver uploads and tracking.
- Achieved 93% code coverage through rigorous unit testing, ensuring high code quality and reliability.
- Implemented error handling and data validation protocols, reducing processing error by 98% and maintaining data integrity.

PROJECTS

SwooperMarket

August 2023 – December 2023

- Built SwooperMarket, a full-stack marketplace web app using React, Next.js, and Vercel, collaborating with 5 students to facilitate easy buy-and-sell interactions within the university.
- Enhanced SwooperMarket's user profiles with customizable fields and avatars, leading to a 40% increase in user profile completion rate within the first 3 months of deployment and streamlining user onboarding process.
- Employed agile development methodologies across 10 sprint cycles to ensure efficient iteration and responsiveness to user feedback.
- Showcased SwooperMarket to over 200 Emory students and faculty, generating positive feedback and attracting 30 new users.

Pac-Man Projects

January 2023 – May 2023

- Implemented a custom Pac-Man AI using Python to address navigation challenges. This AI utilized Depth-First Search for rapid exploration and A* Search for efficient pathfinding within complex mazes.
- Optimized evaluation function, considering factors like pellet proximity, ghost distance, and power-up availability, leading to a 40% improvement in Pac-Man's performance.

J.P. Morgan Chase & Co. Software Engineering Virtual Experience

June 2022 – July 2022

- Constructed a real-time trading dashboard interface using Python and React, empowering traders with actionable market insights.
- Designed an interactive dashboard for traders to filter data, visualize historical trends, and personalize settings, facilitating informed trading decisions.

SKILLS

Programming Languages: Java, Python, C, JavaScript, Typescript, SQL (MySQL, PostgreSQL)

Tools: Git, Node.js, AWS, Jenkins, REST APIs, Jira, Vercel

Frameworks: React, Next.js, Spring Boot, D3.js