

Owen Simpson

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EDUCATION

Northeastern University

September 2021 – May 2025

Bachelor of Science in Computer Science

Boston, MA

- GPA: 3.93/4.00 | University Honors Program | Dean's List
- Networks/Distributed Systems | Object-Oriented Design | Software Eng. | Algorithms & Data | Computer Systems

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Go, Python, Swift, Java, HTML/CSS

Frameworks/Libraries: React.js, Django, SwiftUI, UIKit, Next.js, React Native, Express.js, Pandas, Chalice

Developer Tools: Git, Docker, AWS, GitHub Actions, Jupyter Notebook, Linux, Visual Studio Code, JetBrains, Xcode

EXPERIENCE

Software Engineer Co-op

January 2024 – June 2024

Klaviyo

Boston, MA

- Implemented content review system allowing brands to distinguish between transactional and promotional consent
- Refactored authentication services by separating read/write operations, enabling FTC compliant role-based access
- Authored technical system documentation, ensuring preparedness for the high-traffic Black Friday weekend

iOS Engineer Co-op

January 2023 – August 2023

Zipcar

Boston, MA

- Led development of membership pausing feature on iOS, reducing membership cancellations by >10%
- Established best practices and patterns migrating codebase from UIKit to SwiftUI, replacing 25% of legacy code
- Prototyped new dynamic island feature and presented directly to leadership at hackathon, winning the grand prize
- Configured previously broken automated testing suite, catching dozens of bugs prior to deployment

Undergraduate Computer Science Teaching Assistant

August 2022 – December 2022

Northeastern University

Boston, MA

- Introduced intro level concepts including program design, unit testing, recursion, and abstraction
- Led team of 4 in weekly labs to reinforce material in a smaller environment of ~35 students
- Provided feedback to students through grading and 4+ office hours per week

PROJECTS

Raid Hub Data Platform | *Golang, RabbitMQ, PostgreSQL, ClickHouse, Next.js*

February 2023 – Present

- Launch full-stack web app, data platform, and REST API for tracking Destiny 2 raid stats and achievements
- Maintain 600GB relational database with over 1 billion entries, optimizing queries for <50ms execution time
- Implement advanced cloud caching features of Next.js and Cloudflare to enhance UX, reducing load times by 60%
- Manage suite of asynchronous tasks and batch jobs using Golang, RabbitMQ, cron to preserve data integrity

Sydney Housing Market Evaluation | *Pandas, AWS SageMaker, Chalice*

July 2024 - August 2024

- Trained linear regression model on AWS SageMaker to predict monthly market prices in Sydney within \$160
- Deployed interactive application to AWS Lambda, allowing locals to receive estimates based on 7 different factors
- Engineered a data cleaning script to standardize data format, successfully retaining 70% of rows initially discarded

Pasta Zaddy Mobile App | *React Native, TypeScript, Firebase*

September 2023 – December 2023

- Prototyped application for local pasta chef to manage reservations, outreach with community, and grow his brand
- Engineered custom hook-based solution to simplify Firebase SDK interface to greatly reduce development time

CarpoolNU | *TypeScript, React.js, tRPC, MySQL, Prisma.js*

January 2023 – August 2023

- Delivered web app to Northeastern, helping students commute to co-ops inaccessible by public transportation
- Iterated on intuitive user interface, enabling users to join a carpool group and edit their profile page using React.js
- Developed type-safe MySQL backend that facilitates seamless user connections, group management, and favorites

Ada-2 | *JavaScript, Discord.js, MySQL, AWS EC2, Cron, AWS Lambda*

October 2022 – November 2022

- Developed web bot using JavaScript and MySQL to track rare items for players in game Destiny 2
- Optimized the algorithm to crawl over 2,000 profiles in under 5 minutes, ensuring real-time data accuracy
- Deployed application to cloud to service 100+ guilds and 2000+ users daily using cron jobs on AWS Lambdas
- Managed operations by triaging feature requests and bugs in public forum