

Emily R. Robinson

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Education

Cornell University, College of Arts & Sciences | B.A. Computer Science

August 2019 - May 2023

Related Courses: Foundations of Artificial Intelligence; Practicum in AI; Practical Tools for Operations Research; Machine Learning and Data Science; Intro to Machine Learning; Theory of Algorithms; Data-Driven Web Applications; Data Structures and Functional Programming; OO Programming and Data Structures; Discrete Structures and Logic; Intro to Operating Systems; Unix Tools and Scripting; Foundations in Leadership

Online Courses: Intro to MongoDB (Presently); Intro to Java Spring Framework (Presently)

Technical Skills

Programming Languages: Python (Advanced), Java (Advanced), HTML5/CSS3 (Advanced), JavaScript (Advanced), C (Intermediate), C# (Intermediate), SQL (Intermediate), C++ (Familiar)

Libraries/Frameworks: D3 (Advanced), React (Intermediate), TensorFlow (Intermediate), Pandas (Intermediate), NumPy (Intermediate), REST API (Intermediate), Spring (Familiar), MongoDB (Familiar), Firebase (Familiar), NLTK (Familiar), Python Flask (Familiar)

Work Experience

PairUp | Junior Software Developer

May 2022 - August 2022

<https://pairupapp.com/>

- Developed a dynamic, toggleable segmented bar graph in a **React** web app using Uber's react-vis library, providing valuable insights for mentor-mentee pairing.
- Utilized **TypeScript, JavaScript, and JSX** for frontend development.
- Created a separate React app to analyze user data using **SQL** queries, enabling in-depth evaluation of user engagement.

Cornell University | Teacher's Assistant for CS1110 Intro to Python

September 2020 - May 2022

- Reviewed, assessed, and recorded student grades via the Gradescope platform
- Held in-person group sessions, guiding up to thirty students in test preparation and homework assignments, while using **Python** coding to facilitate their understanding of programming concepts
- Provided written communications to students and staff via email and Slack

Projects

Restaurant Recommendation AI

January 2023 - May 2023

https://github.com/EmilyR102/AI-Projects/tree/main/restaurant_recommendation

- Led a three-person Agile team in the development of an **AI** system coded in **Python** that delivers personalized restaurant recommendations
- Implemented a user input feature to capture restaurant preferences and used the data to query the **Yelp API**
- Utilized **TensorFlow** to train a **neural network** on labeled review data, calculating the likelihood of positive reviews
- Calculated total normalized review and rating scores for each restaurant, applying **Principal Component Analysis** for weight assignment
- Created a scoring function that combined the weighted scores to assign a comprehensive evaluation for a given restaurant
- Presented the top-N recommendations based on their scores
- Managed seamless collaboration, overseeing project progress, coordinating tasks, and writing project reports

Maze Game

November 2021 - December 2021

<https://github.com/EmilyR102/Java-Projects/tree/main/FindPath/src>

- Developed a maze game in **Java** utilizing **hash maps, heaps, and linked lists** to implement Dijkstra's algorithm
- Implemented a scoring system and utilized data structures to track visited/unvisited nodes
- Designed the game to find the shortest path with the highest coin count

Cache Performance Simulator

November 2021 - December 2021

<https://github.com/EmilyR102/C-Projects/tree/main/P5-cache>

- Led a team of two peers in the creation of a cache performance simulator in **C**
- Designed and implemented associative and direct-mapped cache simulations, analyzing their performance
- Parsed address bits and generated graphs to visualize cache data
- Utilized Makefiles to streamline the compilation of project files
- Conducted several unit tests and employed GDB for program debugging
- Facilitated effective communication within the team, sharing feedback, hosting meetings, and setting project milestones