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 Engineer* May 2022 - August 2022
https://pairupapp.com/

- Developed a **React** web app with a dynamic, togglable segmented bar graph using Uber's react-vis library, providing mentor-mentee pairing insights
- Utilized **TypeScript, JavaScript, and JSX** in the app's development
- Created a separate React web 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

GDP Map September 2022 - October 2022
https://github.com/EmilyR102/Web-Application-Projects/tree/main/big_projects/welfare

- Directed a three-person **Agile** team in designing data visualizations of GDP and life expectancy data using **JavaScript** and the **D3** library
- Developed functions to filter, format, and parse relevant details from the data
- Created a choropleth map with a hover feature that displays the selected country's GDP, life expectancy, and population
- Ensured adherence to milestone deadlines, conducted regular team meetings, and prepared comprehensive project reports

Space Invaders June 2021 - July 2021
https://github.com/EmilyR102/StarInvaders

- Developed the game using **PyGame** in **Python**, adding sound effects, score tracking, sprite movements, and keyboard event support
- Implemented enemy behavior, collision detection, power-ups, and multiple levels to enhance gameplay
- Designed and optimized game mechanics to ensure smooth rendering and responsive controls for an immersive gaming experience.
- Performed comprehensive testing, debugging, and refining to fine-tune gameplay, balance difficulty, and eliminate any issues or glitches.