JULIA EPSHTEIN

Boston, MA

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EDUCATION

University of Massachusetts Amherst Honors College   Expected May 2025
B.S. in Computer Science and Mathematics double major

- **Awards and Affiliations**: Rewriting the Code, Dean's List (*All semesters*), CICS Dean's Merit Scholarship (*2022*)
- **Relevant Coursework**: Algorithms, Data Structures, Machine Learning, Software Engineering, Database Management, Information Systems, Linear Algebra, Statistics I & II, Calculus I-III, Discrete Math

SKILLS

Languages: Python, SQL, Javascript, Typescript, Java, C/C++, HTML/CSS
Frameworks: Sci-Kit Learn, Tensorflow, Keras, Pandas, Numpy, React, React Native, Node.JS, Next.JS, Express.JS, Tailwind CSS
Databases, Libraries, & Other Technologies: MongoDB, Flask, PostgreSQL, Framer Motion, Git, Jupyter

EXPERIENCE

The Kale Project, Summer 2023
Research Intern, UC San Diego, CA

- Worked in a team of graduate students on the Kale Project, a research initiative focused on enhancing spreadsheet safety and enabling data scientists to effectively use spreadsheets in their analysis work
- Implemented a feature that allows users to assign custom names to cells and reference them through formulas
- Developed a Widget for **Jupyter Notebook** using **Typescript, React,** and **HTML/CSS** for front-end development and leveraged the **Ag-Grid API** framework for rendering spreadsheet cells

Manning College of Information and Computer Sciences, Sept 2022 - December
Undergraduate Course Assistant, Amherst, MA

- Graded 250+ homework assignments and exams on a weekly basis
- Taught 50-person discussion sections in Python to reinforce programming concepts
- Held weekly office hours to perform code review for students and provide feedback and direction in the course

Advanced Learning Technologies Laboratory Sept 2022 - May 2023
Wearable Learning (WL) Undergraduate Researcher, Amherst, MA

- Extracted data from student-designed games in the WL database to analyze and evaluate gameplay processes, game creation methods, and the development of computational thinking skills
- Applied **BERT**, a powerful multi-label text classification model, to extract keywords and analyze the features of student-designed games for insights into user behavior and game design trends

PROJECTS

Personify, Dec 2023 - Present | *Discover your personality through your Spotify music profile*

- Developing a website for discovering personality traits based on user's Spotify statistics, utilizing **Next.JS, React Native, Tailwind, Flask,** and **Spotify Developer API**
- Fetched and extracted song and playlist features using **Spotipy**. Preprocessed and normalized data with **Min-Max Scaler** and **Label Encoder**
- Implemented a **Multi-Class Neural Network**, tuning the hyperparameters with **Grid Search**, and trained it on the preprocessed data using **K-Fold Cross Validation**

Titanic Survival Prediction, Dec 2023 | *Passenger Survival Data Derived From Kaggle*

- Built a Deep Learning Sequential **Neural Network** using **Keras**. Created dense layers with ReLU activation functions, and compiled with cross-entropy loss and **Adam optimizer**, then fitted to the model for 100 epochs
- Implemented Universal Approximation with **Support Vector Classification** and Random Forest Classification, and used **Grid Search** for hyperparameter tuning.
- Achieved an overall accuracy of 81%