Joshua Pfefferkorn

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Education

Dartmouth College, Hanover, NH **June 2024**
Bachelor of Arts, Major in Computer Science, Minor in Digital Arts **Major GPA 3.97/4.0, Cumulative GPA 3.95/4.0**
Relevant Coursework: Full-Stack Web Development, Algorithms, Object-Oriented Programming, Discrete Mathematics, Software Design and Implementation, Artificial Intelligence, Machine Learning, UI/UX Design
Honors/Awards: Rufus Choate Scholar (Top 5%), Citation in Digital Design

Languages & Skills

Languages: Python, Java, JavaScript, HTML/CSS
Technical Skills: Git, React.js, React Native, Node.js, Express.js, Figma, Adobe Illustrator & Photoshop, LaTeX

Relevant Experience

EY-Parthenon, Boston, MA **June 2023 - August 2023**
Summer Associate, Software Strategy Group

- Conducted multiple market and technology diligences for private equity clients entering the software space
- Prepared comprehensive deliverables on the tech stack, architecture, hosting, and R&D organization of software solutions

Dartmouth Applied Learning and Innovation Lab, Hanover, NH **January 2023 - Present**
Software Developer

- Collaborated with small teams of product designers and software engineers to design, develop, and test web and mobile software applications for external partners using **agile methodology** (10-15 hours/week during academic term)

Greenbox Storage, Hanover, NH **December 2022 - Present**
UI/UX Designer

- Used Figma to independently design user interface and experience for both internal sales dashboard and customer-facing order portal, impacting user experience for staff and 2,000+ customers across 18 college campuses

Maxar Technologies, Herndon, VA **September 2022 - December 2022**
Geospatial Machine Learning Intern

- Developed workflow using AWS EC2 and Docker for testing participant submissions to SpaceNet 8, Maxar's geospatial data science competition
- Co-authored a research paper (accepted for presentation at IGARSS 2023) analyzing deep learning approaches to flood detection using multi-class feature segmentation from satellite imagery

Projects

Flashback **May 2023**
Mobile Application

- Designed and developed full-stack mobile application using **React Native**, **Node.js**, **Express.js**, **MongoDB**, and **Firebase**
- Features user account creation and authentication, in-app photo capturing, social group creation, and photo sharing

Music Genre Classifier **May 2023**
Python Script

- Developed a genre classifier for Russian song lyrics using **scikit-learn**, **NLTK**, **Hugging Face**, and other NLP libraries
- Achieved over 70% accuracy on a dataset of over 5,000 songs using TF-IDF vectorization and an SVM classifier

Brightfin **March 2023**
Web Application

- Developed a full-stack financial education platform using **React.js**, **Node.js**, and **Firebase** that includes interactive financial literacy lessons and quizzes, a rewards progress system, and a terms glossary

Wordle Solver **March 2022**
Python Script

- Used information theory to code a **Python** solver that could find the answer to Wordle puzzles in an average of about 3.5 guesses, storing word entropies in a map ADT for rapid lookup of high-information guesses

Leadership & Activities

Dartmouth Computer Science Department, Hanover, NH **January 2022 - June 2022**
*Teaching Assistant for Object-Oriented Programming (**Java**) & Machine Learning (**Python**)*

- Instructed small groups of 8-12 students during weekly programming sessions, held three hours of office hours weekly to assist students with assignments and studying, and graded and provided feedback on assignments and examinations