JOSEPH ADELMAN

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EDUCATION

UNIVERSITY OF MICHIGAN — **Ann Arbor, MI**
College of Engineering — **December 2024**
Bachelor of Science in Engineering, Computer Science

EXPERIENCE

VERSANA — **New York, NY**
Summer 2023 — **Software Engineering Intern**
- Collaborated with engineers in creating a monolithic **React** based component library, building out multiple Figma based components and testing each one in **Storybook**
- Launched the **Microsoft Azure** Developer Portal, allowing potential clients to have a central portal to access and read documentation for Versanas client facing APIs
- Wrote a script using **Ansible**, **Python**, and **Jinja2** to automate the creation and editing of property files, reducing creation time of forty files from two days to thirty two seconds

Summer 2021 — **HOMEDICS** — **Commerce, MI**
Product Development Intern
- Conducted experiments testing Homedics brand and competing company Heating Pads, using **Excel** and **Powerpoint** to store, organize, and present the data to management
- Researched and developed a Magnetorheological fluid to have possible benefits for future use within massage chairs to satisfy customer complaints, using a power source and copper wire to simulate a magnetic field to change the liquids viscosity
- Constructed and deconstructed massage chair fabrics, batteries, gears, lighting and heating components to build an understanding of internal mechanisms and designsEng

Summer 2019 — **UNIVERSITY OF CALIFORNIA, LOS ANGELES** — **Los Angeles, CA**
Engineering 96 - Rockets
- Used **OpenRocket** and **Solidworks** to design and build two rockets, one in teams of two using an A class engine, and another in groups of five people with a G class engine
- Designed the rocket's components in Solidworks CAD, with the final rocket having a 3D printed avionics bay and nose cone, laser cut plywood wings, and a Blue Tube fuselage
- Conducted flight simulations to ensure mission success in **MATLAB** and **Octave,** and programmed and soldered an **avionics system** to track flight statistics (Apogee, velocity)

PROJECTS

COMPUTER CONTROLLED SNAKE
- Created a snake AI in Python using Pygame and **Pytorch**, and then graphed each individual and average score with matplotlib to track improvement (Highscore: 82)

SEARCH ENGINE
- Developed a segmented inverted index of web pages utilizing a **mapreduce** pipeline, focusing on text analysis (tf-idf) and link analysis (PageRank)
- Designed a scalable web search platform, integrating a REST API based index server for delivering search results, and a user interface to search and see results

PIAZZA POST CLASSIFIER
- Built a program that uses **natural language processing** and **machine learning** to identify the subject of a Piazza post based on the frequency of words used in the post

RAIN ALERT NOTIFIER
- Wrote a script to check local weather using OpenWeatherMap API, and then send text messages using the Twilio REST API. Hosted in the cloud using PythonAnywhere

ADDITIONAL

- Technical Skills: Python, C++, React, Excel, SQLite
- Relevant Coursework: Algorithms, Web Systems, Applied Linear Algebra, Differential Equations, Discrete Math, Probability and Statistics, Computer Security