

Hershal Satam

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Education

Master of Science in Computer Science
University of Michigan – Ann Arbor

January 2020 – Expected December 2020
GPA: 4.00/4.00

Bachelor of Science in Computer Science
University of Michigan – Ann Arbor

September 2016 – December 2019
GPA: 3.72/4.00

Coursework:

Computer Architecture • Computer Security • Machine Learning • Operating Systems • Web Systems • Design & Analysis of Algorithms • Statistical Computing

Skills

Prog. Languages: C++, Python, JavaScript, Java, C, Bash, R, MATLAB, HTML/CSS

Software & Tools: ReactJS, Flask, PyTorch, Git, Perforce, Windows, Linux, LaTeX, Android Studio

Work Experience

MathWorks – Natick, MA

May 2019 – August 2019 / May 2020 – August 2020

Software Engineering Intern

- Developed a new **JavaScript** prototype for the MathWorks Product Installer that would save 6 weeks of information processing and manhours
- Designed and implemented **C++** utilities for the Installer to obtain crucial download and installation information for the company's suite of products
- Redesigned and reimplemented the software used for the backend installation of MATLAB support packages in **C++** using the company's new proprietary tools for more efficient data storage

University of Michigan – Ann Arbor, MI

September 2018 – Present

Graduate Student Instructor/Instructional Assistant

- Taught a weekly class of 40 students, teaching concepts of **assembly language**, **processors**, and **memory management**
- Held office hours for 12 hours per week for students to come for group-based or one-on-one help
- Adapted and evolved how the course was taught for the transition to online learning during the COVID-19 pandemic

Cybernet Systems Corp. – Ann Arbor, MI

May 2018 – August 2018

Software Engineering Intern

- Developed **Python** suite of software used for analyzing the speed and accuracy of the company's autonomous forklift on different operational tasks
- Collected, analyzed, and visualized over 3 months of data for the company to chart the growth of the forklift's performance using **NumPy**, **SciPy**, and **Matplotlib** libraries
- Helped the company meet their performance goals for the forklift by the end of the summer

Projects

finsight

Mobile Application

- Developed an **Android** application in **Java** for users to track their spending habits from their bank account
- Worked on integrating the application with **Plaid API** to connect and gather data from the user's bank accounts.

MovieTrack

Web Application

- Developed a **ReactJS** web app for users to track which streaming services their favorite movies are currently available on
- Integrated the **Python Flask** server-side backend with the TMDB API to gather information on over 500,000 movies

Style Specific Text Generation

Deep Learning

- Designed a novel approach to style-specific text generation using a pre-trained Open-AI GPT model
- Fine-tuned, trained, and analyzed the performance of the model using the **PyTorch** library and Google Cloud GPU