

Hershal Satam

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EDUCATION

Master's of Science in Engineering in Computer Science

University of Michigan - Ann Arbor, MI

Expected January 2020 - December 2020

Bachelor's of Science in Engineering in Computer Science

University of Michigan - Ann Arbor, MI

September 2016 - December 2019

GPA: 3.725/4.0

Coursework

Data Structures and Algorithms, Computer Architecture/Organization. Computer Security, Machine Learning, Operating Systems, Deep Learning, Statistical Computing, Web Systems, Design and Analysis of Algorithms

TECHNICAL STRENGTHS

Programming

C++, Python, Java, C, Bash, R, Flask, PyTorch, MATLAB, HTML, ReactJS

Software & Tools

Windows, LaTeX, Linux, Git, Perforce, Visual Studio, Android Studio, REST API

WORK EXPERIENCE

Mathworks Inc - Natick, MA

Engineering Development Intern

May 2019 - August 2019

- Worked on redesigning and evolving the backend installation software of MATLAB support packages from Java to C++ while also incorporating new, proprietary tools
- Worked alongside senior engineers to integrate the new and updated installation program into the overall MATLAB product. Currently deployed in MATLAB 2020a
- Developed a machine learning model using MATLAB's deep learning toolbox to predict satellite position in orbit, utilizing different CNN and RNN architectures

University of Michigan - Ann Arbor, MI

Graduate Student Instructor for EECS 370: Computer Organization

September 2018 - Present

- Taught a weekly class of 40 students reviewing key concepts of the course (assembly language, memory systems, processor design)
- Designed problems for 6 homework assignments and 2 exams each semester
- Held office hours for at least 12 hours per week for students to come for one-on-one help
- Managed administrative requests and issues, such as special exam accommodations, students medical emergencies, etc.

Cybernet Systems Corporation - Ann Arbor, MI

Software Engineering Intern

May 2018 - August 2018

- Developed Python applications to collect and analyze performance data from the company's autonomous forklift to help the company follow development progress
- Designed data collection and testing suite from the ground up using the NumPy, SciPy, and Matplotlib modules of Python
- Collected and analyzed over 3 months of data using the developed tools, which the company then used to focus development on different aspects of the forklift

PROJECTS

finsight

Mobile Application

- Developed an Android application in Android Studio/Java for users to track personal finance and spending behavior from their bank account
- Worked on integration with Plaid's API for connecting to user's bank accounts and extracting/displaying relevant information
- Conducted multiple user tests with the application to help develop and refine different iterations of the app

Style-Specific Text Generation

Deep Learning

- Worked with a team to design a novel approach to style-specific text generation using a pre-trained Open-AI GPT model
- Researched and analyzed multiple different state-of-the-art pre-trained natural language models to be utilized in the project
- Worked on training and fine-tuning the model using the PyTorch library