ARTHAV ASHOK MANE

https://arthavmane.github.io/portfolio
manearthav03@gmail.com | +1 (716) 292-5737

EDUCATION

Master of Science (M.S.) in Computer Science and Engineering (GPA: 3.75/4.00) *(Aug '21 – expected Dec '22)*
University at Buffalo, State University of New York

Bachelor of Technology (B.Tech.) in Electronics Engineering (CGPA: 8.96/10.00) *(Aug '17 – May '21)*
Sardar Patel Institute of Technology (S.P.I.T.), Mumbai.

PROJECTS & PUBLICATIONS

MNIST Digits Classification — Introduction to Pattern Recognition course project *(Aug '21 – Dec '21)*

- Implemented Symmetric Cross Entropy Learning (SL) and Label-Distribution-Aware-Margin Deferred ReWeighting (LDAM-DRW) models with accuracy upto 98% for ensuring robustness with data with symmetric and asymmetric noise.

Stanford's Pintos Operating System — Introduction to Operating Systems course project *(Aug '21 – Dec '21)*

- Implemented priority scheduling, priority donation and MLFQS for kernel threads; Implemented support for user programs by implementation of virtual memory and system calls.

Fake Review Detection — Senior year (7th & 8th semester) project. *(Aug '20 – May '21)*

- Used natural language processing to create a machine learning model that detects fake reviews and filters them out before being posted with a special focus on precision; obtained about 88% accuracy and precision.
- *Resulting publication:* J. Bhopale, R. Bhise, A. Mane and K. Talele, "A Review-and-Reviewer based approach for Fake Review Detection," *2021 Fourth IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT)*, pp. 1-6, doi: 10.1109/ICECCT52121.2021.9616697.

Speaker Diarization and Transcription — Junior year (6th semester) project. *(Jan '20 – May '20)*

- Reviewed research papers related to speaker recognition and developed an application to implement speaker diarization for different speakers in a group, meeting, etc. to further produce a transcript of their conversation.
- *Resulting publication:* A. Mane, J. Bhopale, R. Motghare and P. Chimurkar, "An Overview of Speaker Recognition and Implementation of Speaker Diarization with Transcription," *International Journal of Computer Applications*, vol. 175, no. 31, pp. 1-6, November 2020. doi: 10.5120/ijca2020920867.

IoT based Food Ordering System — Junior year (5th semester) project. *(Aug'19 – Nov '19)*

- Designed an on-table device for customers to order meals that'll be directly communicated into the kitchen over WiFi, thus attempting to automate the food ordering system in restaurants and food courts.
- *Resulting publication:* A. Mane, J. Bhopale, R. Jain and P. Chimurkar, "A Low-Cost Implementation of an IoT based Food Ordering System," *Grenze International Journal of Engineering and Technology*, vol. 6, issue 2, pp. 123–128, July 2020.

CERTIFICATIONS

- **Deep Learning** — Deeplearning.ai, via Coursera.
- **Applied Data Science with Python** — University of Michigan, via Coursera.
- **Mathematics for Machine Learning** — Imperial College London, via Coursera.
- **Data Science** — Johns Hopkins University, via Coursera.

SKILLS

- Programming: (Proficient) Python, Java, C, C++, SQL; (Familiar) R, MATLAB, VHDL, Assembly
- Operating Systems: Windows, Unix/Linux, Mac OS
- Technologies: Data Science, Machine Learning, Deep Learning, Computer Vision, NLP, DBMS, AWS, Git

EXTRACURRICULAR ACTIVITIES

- Worked as a Teaching Assistant for a class of 70 under Dr. Deepak Karia (HoD – Electronics Engineering, S.P.I.T.) *(Jan '21 – May '21)*
- Served as the Coordinator for Abhyudaya (an NGO educating underprivileged kids) and taught Science and Mathematics to a class of 40 9th and 10th grade students every Sunday. *(Sep '17 – May '21)*
- Coordinated with companies as the student coordinator of Industry Relations committee, S.P.I.T. *(Oct '17 – May '20)*
- Handled institute's research resources as Member of Institute's Innovation Council (IIC), S.P.I.T. *(Aug '19 – May '20)*
- Led a team of 4 in IIT-Bombay's e-Yantra Robotics Competition – qualified for semi-finals. *(Oct '18 – Feb '19)*