REVATHI PRASAD

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EDUCATION

Master of Science in Electrical and Computer Engineering	**August 2022-April 2024**
(Machine Learning and Data Science)	**GPA: 3.76/4**
University of Southern California	

Relevant Coursework (First Year): Probability, Linear Algebra, Computing Principles for Electrical Engineers (C++), Computational Introduction to Deep Learning, Machine Learning 1: Supervised Methods

Bachelor of Technology in Electrical and Electronics Engineering	**August 2015-May 2019**
Mahindra University	**GPA: 8.97/10**

SKILLS

- **Languages and Tools**: Python, MATLAB, MySQL, C++, Git Version Control, Unit Testing
- **Libraries and Frameworks:** Numpy, Scipy, Pandas, Sklearn, Matplotlib, Keras, OpenCV, Tensorflow, PyTorch
- **Behavioural:** Team Leadership, Verbal and Written Communication, Strong Analytical Skills, Attention to detail

WORK EXPERIENCE

Model Designer, Risk Management   **March 2022-August 2022**
Elseware, Remote

- Developed Model and Application to evaluate climate risks on a corporate credit risk portfolio.
- Led Data Wrangling, Feature Engineering, Transformation of 16000 data points for EMDAT database
- Collaborated for Webservices implementation using JAX-RS and Unit Testing on the Elseware Web Tool

Engineer, FaaS   **August 2019-February 2022**
Mahindra & Mahindra, India

- **DiGiSENSE:** Developed and Optimized Tractor Usage Algorithm for Mobile Application using Big Query for DiGiSENSE CCU 3.0. Managed 50% of Backend Platform Support for DiGiSENSE CCU in UAT and Production and supported migration of micro-services Applications to Google Cloud Platform
- **Grape Harvester:** Developed accuracy of YOLO model trained on field images from Vineyards. Analyzed and evaluated performance of NVIDIA Jetson Nano vs NVIDIA Jetson AGX Xavier.
- **Autonomous Cotton Weeder**: Led the development of the CNN model for Cotton vs Weed Classification with a 95% accuracy on real-time data. Performed Intel D435 Camera Calibration and Actuation techniques through the master Embedded PC
- **Potato Roguing Robot:** Led the development of CNN model for healthy vs diseased leaves Classification with a 70% accuracy on real-time data. Performed data augmentation, Intel D435 Camera Calibration, and Actuation techniques through master Embedded PC.

RESEARCH EXPERIENCE

Directed Research   **January 2023-Present**
Cyber-Physical System Design (DesCyPhy Lab), USC
(Advisor: Prof Pierluigi Nuzzo, Viterbi School of Engineering, USC)

- Related Topic: Robustness Verification of Neural Network-Enabled Cyber-Physical System

INVOLVEMENT

- Facilitating Technical Fellowship at AI Safety USC, 2023. Previously, Fellow at AI Safety USC, 2022
- Led the Oral presentation for Autonomous Weeder for Cotton Crop at SIAT 2021
  Autonomous Weeder for Cotton Crop: Revathi Prasad, Ayushmoy Roy, Aditya Rana, Divyang Talpada, Jagmeet Singh, Jayalakshmi Surendran, Saravanan Natarajan, Aadiv Shah, and Hari Nair
- Tutored STEM subjects to students at Aashray Home for Boys, 2020-21
- Headed the Outreach Club which organized social impact programs like Rural Development Project, 2017
- Co-Organised and Curated TEDxMahindraÉcoleCentrale 2017, 2018