Sahitya Mantravadi

sahitya.mantravadi@gmail.com · 510.579.3695 · sahityamantravadi.github.io

EDUCATION

Stanford University | Stanford, CA *Expected Graduation: March 2019*

Masters of Science in Computational & Mathematical Engineering

Cumulative GPA: 3.74/4.00

Relevant Coursework: Machine Learning, Deep Learning, Numerical Linear Algebra, Principles of Software Engineering, Applied Statistics: Learning and Data Mining, Computer Vision, Optimization, Partial Differential Equations, Parallel Computing with OpenMP, MPI, and CUDA, Deep Generative Models, Algorithmic Game Theory

Cornell University | Ithaca, NY *Graduated: May 2017*

Bachelors of Science in Computer Science, Minors in Applied Mathematics and in Business

Cumulative GPA: 3.58/4.00

Jacobs Scholar and Jacobs Engineering Scholar, Deans List all semesters

Head TA for Machine Learning (CS 4780) · TA for Discrete Structures (CS 2800) · TA for Engineering Probability and Statistics (ENGRD 2700)

WORK & RESEARCH EXPERIENCE

Lawrence Livermore National Lab | Livermore, CA

Data Science Summer Scholar *June 2018 – September 2018*

[Machine Learning Group, Computational Engineering Division, Engineering Directorate]

- Researched computer vision techniques for video data to enable object-centric scene understanding and representation learning
- Combined optical flow with a recurrent attention model for object tracking in TensorFlow
- Developed multi-modal models for text, audio, image, and video modalities to advance nuclear non-proliferation efforts
- Created an image classification model in PyTorch to monitor CO_2 microcapsules in transport for carbon capture and storage

Stanford Department of Biomedical Data Science | Stanford, CA

Research Assistant *January 2018 – June 2018*

[Joint work with Professor Chiara Sabatti and Professor Emmanuel Candes]

- Performed quality control and exploratory analysis on UK Biobank dataset (genotypes for 500,000 individuals)
- Implemented parallelized ADMM in MPI and C for LASSO on large sparse datasets for genome-wide association studies

Goldman Sachs | New York, NY

Securities Strats Summer Associate *June 2017 – August 2017*

[Program Trading Strats]

- Researched ETF composition methods and differences in reported ETF holdings versus creation/redemption baskets to brainstorm more effective hedging strategies for large-volume trades

Securities Strats Summer Analyst *June 2016 – August 2016*

[Commodities Trading Strats]

- Analyzed and optimized firm positions in electricity and power markets based on a shift factor model
- Designed algorithms to predict supply and demand of crude oil, gasoline, and distillates from empirical shipment

Cornell University Sustainable Design - Currents | Ithaca, NY

Subteam Lead *September 2016 – May 2017*

- Developed a k-NN model to predict when professors will be in-office, enabling a Smart HVAC system to behave efficiently
- Tested and deployed this algorithm with less than 2% error

Cornell Center for Space Research and Radiophysics | Ithaca, NY

Research Assistant *September 2014 – May 2017*

- Performed analytical computation, statistical analysis, and image manipulation on infrared images of the center of the Milky Way Galaxy to gain further information about star formation and dust gathering in the area using Matlab, Python, and Mathematica
- Presented research, methods, and findings at the annual Cornell Department of Astronomy Undergraduate Research Forum

SKILLS

Mathematical Modeling · Machine Learning · Computer Vision · Applied Statistics · Object-Oriented Programming · Matlab · Python · Tensorflow · PyTorch · R · SQL · OCaml · Java · C/C++ · Assembly code · Photoshop · LaTeX · Public Speaking

INTERESTS

Electric and acoustic guitar · Yoga · Wines · Astronomy