PRATHEEK MALLYA

pmallya@umass.edu
prateek.mallya@gmail.com
LinkedIn: pratheekmallya
GitHub: ryflect

EXPERIENCE

Data Science Intern	Center for Data Science (UMass Amherst)	May 2019 - Aug 2019

- Worked with the Metropolitan Area Planning Council (MAPC) and the UMass Amherst Center for Data Science as part of the Data Science for the Common Good program to perform sample reweighting and splitting on US Census data
- Implemented robust versions of the iterative sample reweighting and sample splitting algorithms
- Worked to generalize the process of generating sample projections with minimal code modification
- Optimized the runtime of the reweighting and splitting algorithms

EDUCATION

Amherst, MA	University of Massachusetts, Amherst College of Information and Computer Sciences	Expected Graduation: May 2020

- M.S. in Computer Science, GPA: 3.5
- Current Coursework: Reinforcement Learning (687), Machine Learning (689), Algorithms for Data Science (514)
- Graduate Coursework: Neural Networks: A Modern Introduction (682), Programming Languages (630), Machine Learning (589), Artificial Intelligence (683), Probabilistic Graphical Models (688), Deep Learning for Natural Language Processing (690D)

Ranchi, India	Birla Institute of Technology, Mesra	Sep 2013 - Jun 2017

- B.E. in Electrical and Electronics Engineering, CGPA: 8.12
- Undergraduate Coursework: Algorithms and Data Structures, Introduction to Programming, Microprocessors, Advanced Engineering Mathematics, Digital Electronics, Control Systems, Digital Signal Processing

TECHNICAL EXPERIENCE

Projects

- **Neural Machine Translation using Attention Mechanisms** (2019)
  - Implemented and trained a 3-layer, 2-head transformer model to perform German-English translation using the IWSLT 2017 Dataset
  - Python, Numpy, Pytorch, SpaCy
- **Semantic Segmentation using Convolutional Neural Networks** (2018)
  - Applied a FCN-8 CNN architecture to perform semantic segmentation on the PASCAL-VOC 2012 Dataset
  - Python, Pytorch, Numpy
- **Automated Vehicle Navigation using Overhead Cameras** (2017)
  - Designed and implemented a practical approach for an automated vehicle in an indoor warehouse setting
  - Applied techniques from image recognition, segmentation, control theory and machine learning
  - Python, C++, MATLAB- Simulink, OpenCV

PUBLICATIONS

- V. Sri Chakra Kumar, Amit Sinha, Pratheek P. Mallya, Nutanlata Nath, "An Approach Towards Automated Navigation of Vehicles using Overhead Cameras", 2017 IEEE International Conference on Computational Intelligence and Computing (ICCIC) Research, December 2017

Skills

- **Programming:** Python, R, C++, C, OCaml
- **Frameworks/ Libraries:** Pytorch, Numpy, Pandas, scikit-learn, matplotlib, MATLAB
- **Communication:** English, Hindi, Kannada, Konkani