Meet P. Vadera

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Education

2017-Present University of Massachusetts Amherst MS/PhD (Computer Science) GPA: 4.0/4.0 2012-2016 Indian Institute of Technology Gandhinagar B.Tech. (Mechanical Engineering)* GPA: 8.29/10

Select Publications

- Vadera M., Ghosh S., Ng K., and Marlin, B. Post-hoc loss-calibration for Bayesian neural networks. In *UAI* (2021)
- Vadera M., Jalaian B., and Marlin, B. Generalized Bayesian Posterior Expectation Distillation for Deep Neural Networks. In *UAI* (2020)
- Vadera M., Cobb A., Jalaian B., and Marlin B. URSABench: Comprehensive Benchmarking of Approximate Bayesian Inference Methods for Deep Neural Networks. In *ICML Workshop on Uncertainty & Robustness in Deep Learning* (2020)
- Vadera M., Shukla S., Jalaian B., and Marlin B. Assessing the Adversarial Robustness of Monte Carlo and Distillation Methods for Deep Bayesian Neural Network Classification. In AAAI Workshop on SafeAI (2020)
- Holtsclaw C., Vadera M., and Marlin, B. Towards Joint Segmentation and Active Learning for Block-Structured Data Streams. In KDD Workshop on Data Collection, Curation, and Labeling (DCCL) for Mining and Learning (2019) (Best Paper Award)

Work Experience

IBM Research (MIT-IBM Watson AI Lab)

Research Intern

 $June ~\hbox{'20- Sept '20}$

- Worked on loss-calibrated inference for Bayesian neural networks. The goal of the project was to improve decision-making on downstream tasks by correcting posterior distribution using decision-utility functions.
- Published a paper on the project at UAI '21, and filed a patent related to the invention.

Kronos Inc.

Data Science Intern

June '18- August '18

- Developed deep learning models to automatically predict late-edit risk in time cards. This leads to significant time saving for managers involved in time-keeping task due to automated sorting of high-edit-risk timecards.
- Worked on an independent R&D project to develop neural network based models for volume forecaster at parity with existing production models.

Innovaccer Inc.

Member of Technical Staff

June '16- July '17

Designed the software architecture, and developed modules of Data Quality Tool and Healthcare measures
computation as core modules for the company's platform. This helped clients build and run a large set of
measures through a plug-and-play framework.

Technical Skills

Python, Scala, C, MATLAB, R, PyTorch, Keras, Weka, Apache Spark, MySQL, Elasticsearch, MongoDB

Awards

- NSF travel award to attend IEEE/ACM CHASE '19.
- Best paper award at KDD '19 Workshop on Data Collection, Curation, and Labeling (DCCL) for Mining and Learning.

^{*}Minor in Computer Science and Engineering.