Ninad Khargonkar

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EDUCATION

University of Massachusetts, Amherst
Amherst, MA
M.S in Computer Science — GPA: 4.0/4.0
Expected 2019

Indian Institute of Technology, Kanpur
Kanpur, India
B.S in Mathematics and Scientific Computing
2013 – 2017

PROJECTS

Approximate Distribution for Sparse Data
Amherst, MA
University of Massachusetts, Amherst
Jun–Aug 2017
- Worked with Prof. Peter Haas on the problem of learning a distribution of a sparse data set of disease prevalence.
- The principle of Maximum Entropy was used to infer the distribution with the marginals and a few most important ranked feature pairs acting as the constraints to the optimization problem which was solved numerically.
- The pipeline of data loading, feature selection and optimization for an input data set was implemented in Python.

Modelling Uncertainty in Deep Learning
Amherst, MA
University of Massachusetts, Amherst
Nov–Dec 2017
- Analyzed the problem of modelling uncertainty in the results from the outputs/scores of a deep neural network.
- Coded a neural network in Keras (python) for the uncertainty value calculation on cifar-10 and mnist datasets.

Depth from Monocular Images
Amherst, MA
University of Massachusetts, Amherst
Nov–Dec 2017
- Studied the problem of depth prediction in monocular images through an unsupervised approach.
- Stereo image pairs were used during training to learn a disparity and hence the depth map.

Hindi Part of Speech tagging
Amherst, MA
University of Massachusetts, Amherst
Nov–Dec 2017
- Developed a part of speech (POS) tagger for Hindi by learning a word level translation between Hindi and English using mono-linugal word embeddings and parallel corpora.
- No supervised pos information was provided and the tagger improved the performance of proxy tasks.

EXPERIENCE

Software Developer
Amherst, MA
University of Massachusetts, Amherst
Sep–Nov 2017
- Worked with Prof. Alkema's lab on a project on statistical indicators for family planning in developing countries.
- Assisted in coding the simulation exercises and modelling the experiments in R programming language.

Globalink Research Internship
Winnipeg, Canada
University of Manitoba, Winnipeg
Summer 2016
- Implemented scale down sampling on graphs using different random walks and analyzed their performance.
- Statistical graph models were used to test significance of network substructures by simulations.
- Worked on a side project on simulating team performance in Uefa Euro'16 and submitted report to JSM 2017.

TECHNICAL SKILLS

Languages: Proficient – Python | Basic level – Java, C/C++, R, SQL
Frameworks/Libs: Numpy, Keras, Scikit-learn, Pandas
Others: Git, Bash, Vim, LaTeX, Matlab/Octave, Linux(Ubuntu)

RELEVANT COURSEWORK

Graduate: Machine Learning, Optimization, Neural Networks, Bayesian Learning, Information Theory.
Undergrad: Data Structures & Algorithms, Probability & Statistics, Numerical Computation, Linear Algebra.

SCHOLASTIC AWARDS

- Recipient of Inspire scholarship awarded by the Govt. of India for consistent academic performance in undergrad.
- Awarded the Mitacs Globalink scholarship for a summer research internship in Canada in 2016.