

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 2018

- Worked with Prof. Peter Haas on the problem of learning a distribution from sparse data set of disease prevalence.
- The principle of maximum entropy was used to infer the distribution with the marginals and some ranked important feature pairs acting as the constraints to the optimization (numerically solved)
- The pipeline of data loading, feature selection and optimization for the input data set was implemented in Python.

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-lingual word embeddings and parallel corpora.
- No supervised p.o.s information was provided and the tagger also improved the performance of proxy tasks.

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.

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.

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, AWS, Spark

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 research internship in Canada in the summer of 2016.