Ninad Khargonkar

ninception.github.io | ninad.khargonkar@gmail.com | 413-345-9601

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

Experience

Research Assistant — Amherst, MA
University of Massachusetts, Amherst — Sep–Nov 2017

- Worked for Prof. Leontine Alkema on a simulation project on statistical indicators for family planning.
- Assisted in coding the simulation exercises and modelling experiments in R programming language.

Research Assistant (Mitacs Globalink 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.

Projects

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.

Stochastic Variational Inference — Kanpur, India
IIT-Kanpur — Jan–Apr 2017

- Conducted literature survey of Variational Inference and its stochastic extension – SVI.
- Implemented SVI on a Latent Dirichlet Allocation model for document-topic categorization in Python.

Technical Skills

Programming: Proficient in Python | Basic level – C/C++, R, Matlab

Frameworks: Numpy, Scipy, PyTorch/Keras, Scikit-learn

Other Tools: Git, LaTeX, Bash, Vim, Emacs, Linux, HTML/CSS

Relevant Courses

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 Dept. of Science & Technology (Govt. of India).
- Awarded Mitacs Globalink scholarship for summer research internship in Canada in 2016.