Ninad Khargonkar

44K Southpoint Dr, Amherst, MA | (+1) 413-345-9601
ninad.khargonkar@gmail.com | ninception.github.io | Linkedin.com/in/ninadkhargonkar

EDUCATION

UMass Amherst | M.S in Computer Science
Expected 2019 | Amherst, MA

IIT-Kanpur | B.S, Dept. of Mathematics and Statistics
Grad. 2017 | Kanpur, India

EXPERIENCE

Programming Assistant | Biostatistics, UMass Amherst *Sep'17 – Present*
Assisting in the coding of the FPET simulation exercises and package development, and providing computational assistance to FPET collaborators in R prog. environment along with the Stan library for Bayesian modelling.

Mitacs Globalink Research Internship | University of Manitoba, Winnipeg *May'16 – Jul'16*
• Implemented scale down sampling on social graphs by different types of random walks and their performance was analyzed.
• ERGM (statistical graph model) was used for producing model fits and simulating random networks for testing significance of network substructures.

TECHNICAL PROFICIENCY

Programming Languages: C/C++, R, Python, HTML/CSS
Simulation / Software: Matlab, RStudio, Microsoft Office
Others: GNU/Linux (Ubuntu), Git, LaTeX, Vim

SELECTED PROJECTS

Stochastic Variational Inference | Bayesian Learning (IIT-Kanpur) *Jan'17 – Apr'17*
• Reviewed introductory papers on Stochastic Variational Inference (SVI) and on the possible extensions in this area.
• Implemented SVI on a Latent Dirichlet Allocation model using a data sample to categorize the data into category topics in Python.

Grayscale image Colorization | Machine Learning (IIT-Kanpur) *Aug'16 – Nov'16*
• Implemented an automatic colorization model (using Tensorflow/Keras) by predicting the per pixel colour histogram using the idea of hyper columns.
• A pre-trained CNN (VGG-16) was used and it was adapted for gray scale by averaging over colour channels.

High-dimensional anomaly detection | Optimization (IIT-Kanpur) *Aug'16 – Nov'16*
• Study of anomaly detection techniques using classification and clustering based methods like K-nn and 1-SVM.
• Implemented a Deep belief network to extract features and used them for one class SVM training.

Bayesian Computation | Undergraduate Project (IIT-Kanpur) *Jan'16 – Apr'16*
• Studied the basics Bayesian methods of analysis and fundamentals of random variable generation and approaches like MCMC and Importance Sampling were used.
• Implemented a Python program for estimation and sampling from a Weibull distribution.

RELEVANT COURSES

Graduate level: Computer Vision, Machine Learning, NLP, Neural Networks, Bayesian Learning, Optimization.
Undergrad: Data structures & Algorithms, Probability & Statistics, Numerical Computation, Linear Algebra.

EXTRACURRICULAR & AWARDS

• Recipient of **Inspire scholarship** awarded by Department of Science and Technology (Govt. of India)
• Developed a **simulation model** in R for Euro'16 soccer tournament and analyzed biases in group stages
• Mentored six freshmen students as a **Student Guide** in the Counselling Service of IIT-Kanpur.