Kunal Ghosh

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EDUCATION

MASTERS

Machine Learning and Data Mining
Aalto School of Science
Grade - 4.47
Graduation 2017 Tentative

UNDERGRADUATE

Computer Science
Visvesvaraya Technological University
Grad May 2011 | Bangalore, India

COURSEWORK

MASTERS

- Deep Learning
- Programming Parallel Computers
- Convex Optimization • Information Retrieval • Bayesian Data Analysis
- Machine Learning & Neural Networks
- Machine Learning Basic Principles
- Algorithmic Methods of Data Mining
- Computational Science

MOOC

Learning From Data (edX.org):

- Instructor : Prof Yaser (Caltech)
- 10 week long Machine Learning course with 8 homework sets and a final exam • Assignments done using Matlab and LibSVM
- Course with significant theoretical content. Topics include : Theory of Generalization, VC Dimensions, Kernel Methods and SVM • Grade: 80%

Machine Learning (Coursera):

- Instructor : Prof Andrew (Stanford)
- 10 week long course.
- Assignments done in Octave.
- Practical course focusing more on applications of machine learning.
- Grade: 100%

SKILLS

Good with:

• Python (Including Theano, Numpy, Scipy, SciKit Learn) • Matlab & Octave

Some knowledge of:

• C • C++ (Cuda & OpenMP) • Stan (Probabilistic Programming) • SQL • Shell Scripting • Java • LaTeX

WORK EXPERIENCE

AALTO UNIVERSITY | Research Assistant - Honours Program
Oct 2016 - Present | Espoo, Finland

- Working on developing deep learning models to predict Molecular electronic properties. Supervised by Prof. Aki Vehtari. The project is a collaboration between Prof. Vehtari (Dept. Computer Science Aalto University) and Prof. Patrick Rinke (Dept. Applied Physics, Aalto University)

AALTO UNIVERSITY | Research Assistant
May 2016 - Present | Espoo, Finland

- Studying semi-supervised extensions of the Variational Auto-Encoder and related models. Initially supervised by Prof. Tapani Raiko. Currently being supervised by Prof. Aki Vehtari and Dr. Jyri Kivinen.

AMAZON | Software Development Engineering in Test
Dec 2013 - Aug 2015 | Bangalore, India

- Developed tests to validate the effect of seasonality on a Shoe size recommendation system.

AMAZON | Quality Assurance Engineer
Aug 2011 – Nov 2013 | Bangalore, India

OWNCLOUD.ORG | Google Summer of Code Intern
May 2011 – Aug 2011

DIGIKAM.ORG | Season of KDE Intern
May 2010 – Sept 2010

TEACHING

- 2016 - Course on Deep Learning - Aalto University - Main Teaching Assistant.

THESIS & PUBLICATIONS

[1] G. Kunal, M. GuruPrasad, S. Dharini, and J. L. KiranTej. Undergraduate thesis on face recognition. ***Comparison of the recognition accuracy of Eigen Faces, when applying different dimensionality reduction algorithms on the input images.*** I implemented PCA and Locality Preserving Projections (LPP) in Python + NumPy, 2011.

AWARDS

2016 Inducted into the Machine Learning Honours Program at Aalto University. Awarded for maintaining good progress in studies (completed 63 ECTS out of 90 in the 1st year) while maintaining good grades (4.47 out of 5)

2014 2^{nd}/100 teams. Amazon Internal Machine Learning Contest. (Predict Customer Support communcation method Phone/Email based on customer hisory).

2013 99.5 percentile in GATE 2013. 1019^{th}/224160 candidates.

2004 29^{th}/~$2x10^5$ candidates. National Talent Search Scholarship. State Level.