Ajinkya Khamkar

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EDUCATION

Indiana University, Bloomington, Indiana

M.S. in Data Science — Aug 2016 – May 2018

- Cumulative GPA: 3.6 / 4.0
- Awards: Data science fellowship for 2016-2017, 2017-2018

University of Mumbai, Mumbai, India

B.S. in Computer Science — Aug 2011 – May 2015

- Cumulative GPA: 3.6 / 4.0

PROJECTS

Partial list, link to additional projects

Image classification and localization using deep convolutional neural networks

- Designed deep learning network to classify the PASCAL VOC 2007 data set. Image localization was performed using bounding boxes and regional convolutional networks.
- Model was built using Keras library with tensorflow architecture in python and trained using Indiana University's cluster computing resource Karst.

Generative adversarial networks for face generation in the wild

- Designing Wasserstein generative adversarial network for face generation in the wild using the Olivetti facial database.
- Implementing boundary detection mask to quicken training and improving generators ability to understand complex shapes
- Model is designed in Keras with theano background, training was performed on Indiana Universities cluster computing resource Karst.

Forecasting unemployment rate using long short term memory networks

- Designed recurrent neural network model in Python to forecast unemployment rate.
- Model's performance was excellent with a RMSE error of less than 0.05.

Amazon back order predictions

- Tackled class inseparability using non-linear data transformations, support vector machines and neural networks to achieve over 90% accuracy and over 85% precision.
- The neural network model was built using h2o framework in R.

Artificial intelligence agents for board games

- 'Connect 4' agent based on increasing depth alpha-beta pruning search; agent searched at depth 7 and returned the best possible move in 3 seconds.
- Designed board game agent for partially observable environments using Davis-Putnam-Logemann-Loveland satisfiability algorithm.
- Designed board game agent for stochastic partially observable environments using Markov decision process.

WORK EXPERIENCE

Research Assistant, University of Mumbai — Sep 2015 – Jul 2016

- Designed unsupervised document classification algorithm using weighted corpus, inverse document frequency and document scores.

Data Analyst, Holding Willey cricket website — Jun 2015 – Oct 2015

- Designed and implemented player database schema. Extracted information using scraping techniques. Performed data cleaning and uploading.
- Increased user base by improving social media participation. Optimizing content delivery at time of maximum user traffic.

PROFESSIONAL COMMUNITIES

Association of Information Science and Technology, Indiana University

- President — Jun 2017 – May 2018

Computer Society of India, University of Mumbai

- General Secretary — Aug 2012 – Aug 2014

SKILLS

Language: R, Python, SAS, Stata

Computer Vision repos: Keras with Tensorflow and Theano architectures, OpenCV, Scikit-image and Pillow

Visualization: Tableau

Database: SQL, SQLite