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EDUCATION

CARNEGIE MELLON UNIVERSITY, SCHOOL OF COMPUTER SCIENCE — Pittsburgh, PA
Master of Science in Intelligent Information Systems — Graduating Dec 2017

- COURSES (FALL 2016): Machine Learning, Search Engines, Language and Statistics
- COURSES (SPRING 2016): Machine Learning for Text Mining, Advanced Multimodal Machine Learning, Information Retrieval Lab, Lean Entrepreneurship

PES INSTITUTE OF TECHNOLOGY, DEPT. OF COMPUTER SCIENCE — Bangalore, India
Bachelor of Engineering in Computer Science — Graduated Jun 2015

- CORE COURSES: Algorithms, Data Structures, Databases, Web Technologies, Mobile Systems Engineering
- ELECTIVES: Data Mining, Natural Language Processing, Social Network Analysis

EXPERIENCE

CARNEGIE MELLON UNIVERSITY — Pittsburgh, PA
Teaching Assistant — Jan 2017 – current

- Teaching assistant for Mobile and IoT Computing Services (08-781/08-766/45-887/45-987) in Spring 2017

CARNEGIE MELLON UNIVERSITY — Pittsburgh, PA
Research Assistant — Sep 2016 – current

- Consulting as a web developer on a research project in Social and Decision Sciences department
- TECHNOLOGIES: JavaScript, Node.js, ExpressJS, HTML/CSS

SENSARA TECHNOLOGIES — Bangalore, India
Product Engineer — Aug 2015 – Jul 2016

- Responsible for building adbreaks.in with television program and ad data
- Worked on building search capabilities for adbreaks.in and the Sensy Android app using information retrieval techniques from Wikipedia (infobox + content) and OMDb for actors, crew and titles
- TECHNOLOGIES: Python, NLTK, Django, Jinja, HTML/CSS

INTUIT INC, INDIA DEVELOPMENT CENTRE — Bangalore, India
Co-op Engineering Intern — Jan 2015 - Jun 2015

- Worked on maintaining and testing mint.com REST APIs as part of Mint Platform team
- TECHNOLOGIES: Java, Python, Bash

PROJECTS

News Article Classifier (Team of three) — Carnegie Mellon University, Language and Statistics Course Project

- Built a news article classifier to classify whether it is a real news article or a fake article generated from a tri-gram language model
- Implemented features like n-gram language model perplexity, type-token ratio, burstiness, sentence length distribution, topic modelling, Flesch-Kincaid readability tests and Jaccard similarity
- Experimented with various classification techniques such as Support Vector Machines, neural networks and boost classifiers and achieved classification accuracy of 95.5% on test data
- TECHNOLOGIES: Python, scikit-learn, NumPy

QryEval Search Engine (Individual) — Carnegie Mellon University, Search Engines Course Project

- Built a search engine from scratch as a part of a course requirement
- Experimented and implemented information retrieval algorithms like exact-match Unranked Boolean, Ranked Boolean and best-match BM25 and Indri algorithms
- Implemented result re-ranking techniques like query expansion, Learning to Rank (LeToR) and query diversification
- Evaluated performance based on metrics like MAP (Mean Average Precision), Precision@k and NDCG (Normalized Discounted Cumulative Gain)
- TECHNOLOGIES: Java, Lucene

Question Generation from Dialog Data (Individual) Carnegie Mellon University, Research Project

- Worked on SmartReader, an automatic question generation system from dialog data under Prof. Teruko Mitamura meant for teaching high school kids English
- Used Bolt English discussion forums from UPenn LDC as dataset and applied supervised techniques at named entity recognition and co-referencing and event co-referencing
- Generated questions and answers using template-based techniques from co-references with 72.2% usage ratio
- TECHNOLOGIES: Python, Python NLTK, Stanford CoreNLP

Driver Fatigue Detection System (Team of three) PESIT, Bachelor of Engineering Capstone Project

- Computer Vision based project focused on real-time video processing on face
- Detected yawns and measured eye blink durations and frequencies with 89.3% accuracy and 97% recall
- Published in IEEE International Conference on Signal and Image Processing, China 2016
- TECHNOLOGIES: Python, OpenCV, NumPy

Customer Care Bot for Mobile Phone Sales (Team of three) PESIT, Natural Language Processing Course Project

- Machine Learning and Natural Language based text-based customer care bot for mobile phone sales
- Achieved 65% precision and 71% recall using in-house data to train question-answering model using MaxEnt classifiers and Markov models
- Handled spelling mistakes and shorthand (SMS/text) lingo
- TECHNOLOGIES: Python, NLTK, NumPy, SciPy

SKILLS

- PROGRAMMING: Python, Java, JavaScript, HTML/CSS, PHP
- DATA SCIENCE: Python scikit-learn, Stanford CoreNLP, Python NLTK, Weka ML library suite, OpenCV
- WEB AND MOBILE: Django, Flask, Jinja, Node.js, ExpressJS, AngularJS, MongoDB

ADDITIONAL INFORMATION

- Best Capstone Project (Social Impact), PESIT 2015: for Driver Fatigue Detection System
- Won Intuit Android Hackathon, Intuit 2014: Developed an app which could interface with a laptop or a PC with advanced functions like file operations, media handling and administrator functions
- Finalist (top three), SAP Lumira Hackathon, SAP 2014: Developed an algorithm which compared phone apps on different app markets and determined which app is performing better on which app stores using rule- based regression
- Finalist (top five), Ayana 2014 (PESIT's annual hackathon): Developed a prototype of a web browser extension which studied and learnt user behavior patterns by mapping and generating heat-maps of mouse movements and clicks
- Finalist (top ten), IBM The Great Mind Challenge, 2012: Developed an application framework which provides train passengers a better travel experience by providing them fresh and wholesome food, thereby enabling employment opportunities in rural areas
- Stood 2nd, Google India Technology Quiz: National level technology quiz
- Stood 2nd, eBay University Programs Technology Quiz: Campus level technology quiz