

Education

NORTH CAROLINA STATE UNIVERSITY

Master of Computer Science

Raleigh, NC

Aug 2016 – Dec 2017 (Expected)

COURSEWORK: Design & Analysis of Algorithms, Business Intelligence, Computer Networks,

GPA: 4.00 / 4.00

Databases, Artificial Intelligence, Graph Theory, Foundations of Data Science, Automated Learning & Data Analysis

PUNE INSTITUTE OF COMPUTER TECHNOLOGY

Bachelor of Engineering, Computer Engineering

Pune, India

Aug 2012 – Jun 2016

COURSEWORK: Data Structures, Software Engineering, Data Mining, Natural Language Processing

GPA: 3.78 / 4.00

Technical Skills

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| LANGUAGES / DATABASES | C++, C, Python, R, Java, Shell Scripting, Q, Markdown, MySQL, Oracle 11g, MongoDB |
| MACHINE LEARNING | Scikit-Learn, Caffe, Numpy, Pandas, GNU Octave, Weka, Doc2Vec, NLTK, Apache Spark |
| WEB TECHNOLOGIES | HTML5, CSS3, PHP, Bootstrap, phpMyAdmin, Python - Bottle, WordPress, REST API |
| TOOLS / FRAMEWORKS | Tableau, JDBC, Eclipse, Visual Studio, Adobe SDK Plug-ins, IntelliJ, GitHub |

Experience

QUANTWORKS INC. (Graduate Intern – Backend)

May 2017 – Present (Raleigh, NC)

TECHNOLOGIES: C++, Python, NLTK, Pandas, REDCap database, iPython notebook, Visual Studio, Adobe C++ plug-ins

- Building a smart abstractor for the extraction of structured data from medical records in REDCap database
- Writing Adobe Acrobat VC++ plugins for Optical Character Recognition (OCR), PDF highlighting and bookmarking
- Automating the abstraction process to bring down the PDF processing time from 3-4 hours to 15-20 minutes
- Performance enhancement of a live, production Operation Research system for a Fortune 500 company

IKNOWLATION RESEARCH LABS PVT. LTD. (Machine Learning Intern)

Aug 2015 – Apr 2016 (Pune, India)

TECHNOLOGIES: Python, Nvidia Caffe, Numpy, Pandas, H5Py, Scikit-Learn, Python Bottle, Chainer, HTML5, CSS3

- Worked on a team project to describe the video content in English using Convolutional and Recurrent Neural Nets
- Finetuned two of the Nvidia's CNN caffemodels (Google-Net and VGG-Net) on ImageNet dataset of 1.2M images
- Trained Long Short-Term Memory (LSTM) models on MSCOCO dataset of 120K images with Chainer framework
- Performed model evaluation and testing to improve its accuracy from 0.63 to 0.77

Projects

RESTAURANT PHOTO CLASSIFICATION

Python, Nvidia Caffe, Numpy, Pandas, H5Py, Scikit-Learn, PyCharm

- Implemented a three-stage transfer learning pipeline with Convolutional Neural Nets and Support Vector Machine
- Extracted features from with ~250K training images and ~1.2M testing images using BAIR Reference Caffemodel
- Trained a Support Vector Machine (SVM) One vs All classifier using these features for multilabel learning

SETTLEMENT MAPPING

Python, R, Numpy, Pandas, Scikit-Learn, Weka, QGIS, Octave, GNU Octave

- Developed an unsupervised learning system to exploring the settlement activities for disaster recovery
- Implemented Gaussian Mixture Models using Expectation Maximization algorithm and 1-Holt rule based classifier
- Evaluated its performance with Weka's RIPPER (another rule based classifier) and Scikit-Learn's GMM model

SENTIMENT ANALYSIS

Python, Scikit-Learn, Apache Spark, Apache Kafka, PyCharm

- Built an application using the dataset containing the real-time tweets and IMDB reviews from the internet
- Used Logistic Regression and Doc2Vec with Artificial Neural Nets (with document vectors as features)
- Worked with Twitter's Streaming API to fetch the tweets at runtime and stored them using Apache Kafka buffer

PERSONAL HEALTH MANAGER

Java, JDBC, Oracle 11g, IntelliJ

- Developed an application to manage patient's health information, recommendations and emergency alerts
- Used Java Database Connectivity (JDBC) to interfacing with the Oracle SQL 11g containing the tables for patients, health history, their health supporters, and diseases. Implemented triggers in Oracle for the unusual events

LEAVE MANAGER FOR UNDERGRADUATE COLLEGE FACULTY

HTML5, CSS3, PHP, MySQL, phpMyAdmin

- Built a web application to make the college's paper-based leave management system obsolete
- Led the back-end team to create a database schema in MySQL and wrote PHP scripts to handle database queries
- Helped the front-end team in designing the leave application form widget using HTML5 and CSS3