

AISHWARYA PATIL

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EDUCATION

Santa Clara University, Santa Clara, CA

Masters in Computer Science and Engineering

Sept 2016 - June 2018

Coursework: Pattern Recognition and Data mining, Design and analysis of algorithms, Distributed Systems, Mobile Application Development, Artificial Intelligence, Advanced Web programming, Web Search and Information Retrieval

Vishwakarma Institute of Technology

Bachelor of Technology in Computer Engineering

GPA: 3.73

July 2012 – May 2016

Coursework: Operating System, Data Structures, Embedded Systems, Programming Languages, Machine learning, Database Management Systems

SKILLS

Programming Languages: Python, Java, C++, SQL, R, Javascript, Ruby on Rails, HTML, CSS, Shell, Awk
Frameworks and tools: Apache Spark, Kafka, Hadoop, Hbase, Hive, Pig, Flask, NodeJs, Git, Android, AWS, D3.js
Databases: MongoDB, MySQL, NoSQL

EXPERIENCE

Software Engineering Intern

CISCO (Enterprise Minds Collaboration)

Jun 2017- Dec 2017

- Designed and developed data pipeline to process 10 billion unstructured domain specific log file data for a search engine
- Performed text mining using algorithms such as TFIDF, dice index on non-linguistic text
- Designed algorithms to extract features and patterns from data and calculated text similarity using cosine similarity
- Implemented the system using **Apache Spark(Python) and Gensim**
- Designed UI application for the system using **Flask**, REST APIs for collection and retrieval of high volume data, **MongoDB** for backend database

Research Assistant Machine Learning

Jan 2017-Present

Supervisor: Prof. Manoochehr Ghiassi (Santa Clara University)

- Analysis of dynamic neural network(DAN2) on image recognition
- Working on feature extraction for Cats Vs Dogs using SIFT(Scale invariant feature transformation) and bag of visual words model, and analysis of model using dynamic neural network

ACADEMIC PROJECTS

Distributed Messaging Application (Java)

Mar 2017

- Designed user-friendly web-based messaging application having multiple clients and a server using HTML, CSS, MySQL, JAVA RMI
- Programmed the application in such a way that server could distribute and schedule its tasks to clients connected to the same network for processing of task with the flexibility to connect or disconnect a new client in real time
- Developed the application the concepts of distributed system such as consistency, replication, and concurrency
- Designed the web application to provide scalability and scope for further improvement

SchoolFinder Application - Mobile Application (Xamarin- iOS -Android Application, C#)

Mar 2017

- Designed a school finder application which helped users to find appropriate school according to their preferences
- Implemented search algorithm wherein users could find schools based on programs, degrees, size, name, type of organization using Microsoft Azure for backend database.
- Displayed detailed information about each school average annual cost, graduation rate, financial aid, salary after graduation

Automated Gardening System (Java)

Dec 2016

- Developed a user-friendly automated gardening system in Java
- Designed the graphical user interface using JavaFX
- Implemented the application using object-oriented concepts having sprinkling system, temperature control with automatic sensing, pest control, and logging modules.
- Each module performed various functions such as automatically sensing weather conditions and setting the sprinkler on/off during rains. The system stored all in a file log and displayed them in application log page

Detection of Fraud in Enron Scandal Machine Learning (Python, NumPy, Pandas, scikit-learn)

Dec 2016

- Automated the detection of person of interest in Enron Scandal using Decision Tree Classifier (Supervised Learning)
- Performed exploratory data analysis to remove outliers, scaled the features using MinMaxScaler
- Used SelectKBest for feature selected. Tuned the parameters using GridSearchCv
- Analyzed various classifiers such KNearestNeighbor, Support Vector Machine, Logistic Regression, AdaBoost, Decision Tree to select best model

Detection of Diabetic Retinopathy Deep Learning (Python, Numpy, scikit-learn)

Dec 2016

- Automated the detection of diabetic retinopathy using Convolutional neural network(CNN) in Keras (Tensorflow) on dataset consisting of 35,000 images of people’s retina
- Performed principal component analysis for dimensionality of training data
- Compared the performance of KNearestNeighbor and Support Vector Machine with CNN

Android Application for grocery product in regional language(Android)

May 2015

- Designed and developed android application for grocery products in regional language Marathi
- 66 percent of the people of people in Maharashtra(State in India) are literate only in regional language Marathi and this application was an effort to help people of Maharashtra
- Compared and analyzed the price of the product from nearby shopping center and displayed the best price and location of respective shopping center using Google Maps