# AISHWARYA PATIL

San Francisco Bay Area, CA | 408-505-9577

https://www.linkedin.com/in/patilaishwarya/
https://github.com/Aishwarya1401
anpatil@scu.edu | apatil1401@gmail.com

## SKILLS

**Experienced**: Python, Java, C++, Javascript, Ruby on Rails, HTML, CSS, Apache Spark, Spark Streaming, Hadoop, Flask, NodeJs, Bootstrap, Git, Android, AWS, Shell, Awk, MongoDb, SQL, MySQL, NoSQL, R
**Familiar**: Apache Kafka, Cassandra, ElasticSearch

## EXPERIENCE

### Software Engineering Intern
*Enterprise Minds Inc.- CISCO Collaboration*                                                    *Jun 2017 – Dec 2017*
- Cisco had an inefficient process of querying error logs which took 6 to 7 days to fetch the result of a single error. My project was to reduce the query time and we successfully reduced it to just 36 seconds.
- Collaborated with a team of 7 engineers and data scientists to make sense of the current search engine and its underlying data and formulated a new search engine architecture using **Apache Spark and Gensim**.
- 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 and dice index on non-linguistic text.
- Designed algorithms to extract features and patterns from data and calculated text similarity using cosine similarity.
- Designed UI application for the system using **Flask, HTML, CSS, Javascript** and REST APIs for collection and retrieval of high volume data, and used **MongoDB** for backend database.

### Research Assistant - Machine Learning                                                     *Jan 2017 – Present*
*Supervisor: Prof. Manoochehr Ghiassi (Santa Clara University)*
- Designing an image recognition system using the dynamic neural network (DAN2) machine learning algorithm.
- Working on feature extraction where the system can confidently classify images for Cats Vs Dogs using SIFT (Scale invariant feature transformation) and bag of visual words model algorithms.

## TECH PROJECTS

### Fitness Application – Mobile Application (React Native, Graphcool, GraphQL, Node, HTML, CSS)        *Mar 2018*
- Designed a fitness application to track workouts, diet, nutrition and calories using expo (react native).
- Connected the application to external APIs to get activity details.
- Designed GraphQL schemas and exposed its interface for the frontend using serverless Graphcool.

### SchoolFinder Application - Mobile Application (Xamarin- iOS -Android Application, C#)              *Mar 2017*
- Designed a school finder application which helped users to find appropriate schools according to their preferences
- Implemented the backend using C# wherein users could find schools based on programs, degrees, size, name, type of organization. Used MySQL for backend database and deployed it using Microsoft Azure.
- Displayed detailed information about each school's average annual cost, graduation rate, financial aid, salary after graduation

### Automated Gardening System (Java)                                                         *Dec 2017*
- Developed a user-friendly automated gardening system in Java and JavaFX.
- Implemented the application using object-oriented concepts having sprinkling system, temperature control with automatic sensing, pest control, and logging modules.
- Designed the system in a modular fashion where each module performed various functions such as automatically sensing weather conditions and setting the sprinkler on/off during rains.

### 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 selection. 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 reduction of training data
- Compared the performance of KNearestNeighbor and Support Vector Machine with CNN

## EDUCATION

**Santa Clara University, Santa Clara, CA, USA**
*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, India**
*Bachelor of Technology in Computer Engineering*                                              *July 2012 – May 2016*