# **Anjali Kumar**

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#### **EDUCATION**

Santa Clara University

Master of Science, Computer Science and Engineering

Santa Clara, CA

Sep 2016 - Jun 2018

**Amity University** 

Bachelor of Technology, Biotechnology

Gurgaon, India Aug 2012 - Jun 2016

## TECHNICAL SKILLS

Languages: JavaScript, Python, HTML, CSS, Ruby, C

Frameworks: Angular, React, Sinatra, Ruby on Rails, Express

Databases: MongoDB, PostgreSQL, SQLite

Other: Amazon Web Services, Heroku, Git, Webpack, Bootstrap

#### **EXPERIENCE**

### Frugal Innovation Hub (Santa Clara University)

Full Stack Developer

Santa Clara, CA Jul 2017 - Apr 2018

Created a website for an NGO called Collaborate For Africa with a team of 3 people. The website was created using the MEAN stack. It is a RESTful Web Service. The application allows users to add stories, research papers and events they are hosting. The rich text editor TinyMCE has been integrated in the website to allow users to style their content. Authorization has been provided using Auth0. A whitelist has been created that currently gives only members of the organization access to add and delete content on the website.

#### **PROJECTS**

**iTunes:** Created a RESTful website that is a clone of the iTunes Top Charts using React, Webpack and Apple Music APIs.

**Weather App:** Created a weather app using Dark Sky and Google APIs.

**Inference Engine:** Implemented a propositional logic resolution-based inference engine in Python. This inference engine accepts statements in CNF form or otherwise converts the statements to CNF form and answers queries based on the resolution algorithm. It keeps resolving until it is determined whether the query can be satisfied or contradicted.

**FreeRTOS Synchronization Mechanisms**: In this project, I conducted an evaluation of the performance of Semaphores, Reference Coloring Algorithm and FreeRTOS task notifications. FreeRTOS was run in an Xilinx Zynq SOC. The development was done within Xilinx SDK Development environment. Implemented in C.

**Pathfinding Application**: The application uses an Artificial Intelligence Search Algorithm (A\* Search) to find an optimal path by calculating costs of all possible paths to the end point in a given environment and picking the one with the least cost.

**Diagnosing Type of Breast Cancer**: Uses a machine learning technique (ID3) to analyze data from the public archive - *archive.ics.uci.edu* and determines whether the patient has a malignant or benign tumor. Implemented in Python.