Immanuel Amirtharaj

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SUMMARY OF QUALIFICATIONS
- **Languages:** C++, Objective C, Swift, C, Java, Python, Matlab, SQL, JavaScript, PHP, R
- **Development Technologies:** AngularJS, AWS, Cocoa Touch, Core Animation, Flask, Git, Heroku, MapKit, NodeJS, Scikit, SVN
- **Operating Systems:** Linux, iOS, macOS, Windows 10, Raspian

WORK EXPERIENCE
Santa Clara University Internet of Things Laboratory - June 2017 - Present
Graduate Research Assistant
- Conducted experiments as part of a masters thesis to evaluate the INA219 breakout board as a potentially alternative and cost effective way to measure power consumption on iOT devices.
- Used my findings to develop an internal tool which was used within my research group.
- Implemented a server program on a Raspberry Pi as part of a testbed to collect network related information from iOT devices in a home environment.

Apple Inc. (FileMaker) - June 2016 - September 2016
iOS Software Engineering Intern
- Implemented the user interface and business logic for OAuth 2.0 authentication in FileMaker Go 16
- Implemented the user interface for the updated settings and login workflow.
- Participated in design reviews and collaborated with quality assurance for testing.
- Performed accessibility and localization updates and fixed bugs throughout the codebase.
- Gained experience in UIKit, iOS application states, localization, and accessibility.

WeatherSphere - April 2015 - September 2015
iOS Software Engineering Intern
- Reimplemented the UI for the existing Fishing Spots application for its next release.
- Implemented new features including an updated newsfeed and a new profile page.
- Integrated the application with internal web APIs for data retrieval.
- Used Grand Central Dispatch and NSCache to increase responsiveness and decrease loading time.

EDUCATION
Santa Clara University
- M.S in Computer Science and Engineering with Data Science Emphasis. GPA: 3.525
  - Coursework: Data Mining, Web Search, Cloud Computing, Machine Learning
  - **Expected Graduation: June 2018**
- B.S in Computer Science and Engineering with Minor in Mathematics, June 2017. GPA: 3.328
  - Coursework: Algorithms, Data Structures, Database Systems, Computer Networks, Operating Systems, Computer Architecture, Compilers, Statistics

LEADERSHIP EXPERIENCE
Teaching Assistant at Santa Clara University - September 2017 - Present
- Responsible for leading lab sessions and holding office hours for the following classes: Intro to Web Programming, Computer Networks, Intro to Matlab, and Advanced Programming in C.

SELECTED PROJECTS
Linda Coordination Model for Distributed Systems - April 2017
- Created a Java implementation of the Linda model for a distributed system.
- Supported functions are adding of new hosts, as well as read, write, and delete operations on data.
- Implemented consistent hashing to make the system redundant and fault tolerant.

Project SeetiTel - May 2015
- Won 2nd place out of 12 teams at Santa Clara University's Broncohack Hackathon
- Worked with a team of 2 other people to build SeetiTel, an iOS app which serves as an anonymous and secure forum for whistleblowers to share illegal activity via SMS.
- Implemented an iOS frontend and used a REST API for data retrieval.