

## Sathish Kumar Santhanagopalan

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### Education

**Binghamton University, State University of New York**  
Master of Science in Computer Science

**CGPA 3.5/4**  
Expected May 2018

**Anna University, Tamil Nadu, India, First Class**  
Bachelor of Technology in Information Technology.

**CGPA 8.0/10**  
Graduated April 2014

### Experience

**Software Engineer Intern**  
**Telenav Inc.**

Santa Clara, California  
July 2017 - August 2017

As an intern, some of the tasks that I carried out were,

- Wrote Unit test cases for Search Library of their Unified Android SDK Model. Used JUnit, Mockito and PowerMockito to implement them and used Jacoco to find code coverage
- Coded Jenkins Pipeline Job in Groovy, which runs on a trigger of Pull Request in Bitbucket. Unit test cases were executed as a part of build. Goal was to setup build and test automation pipeline for the Search Library
- Coded Python automation script, that reads Android xml files and populates an excel based on constraints.

**Software Engineer**  
**Larsen & Toubro Infotech Limited**

Chennai, India  
June 2014 – August 2016

I served as a developer in building the **ServiceFirst SaaS** Product which deals with life cycle of a product after its delivery to Customer. As a part of development team,

- Developed wireframe screens with ServiceFirst Product, based on the requirements from Client
- Developed a generic Routing logic, which would route the Tickets to desired Agents to resolve, for Multiple Tenants
- Coded to trigger an Email to the registered client, on a status change in the ticket
- Did Production deployments in IBM Cloud and provided production support for Client.

### Technical Skills

<b>Languages &amp; Frameworks</b>	Core Java, Python, C, Javascript, Flask, Spring boot, Tensorflow Keras
<b>Tools</b>	JSON, Rabbitmq, Google Cloud, Microservices, Docker, Jenkins, Git, Bitbucket
<b>Databases</b>	MySQL, MongoDB

### Relevant Coursework

Algorithms, Design Pattern, Cloud Computing, Machine Learning, Data Mining, Database Management system, Operating System, Computer Networks.

### Projects

#### **Weather monitor IoT Simulation Dashboard Service**

- Implemented weather dashboard service with Microservice architecture.
- Spring boot service acts as master to store data in MongoDB and send to Flask service.
- Flask service predicts future weather using TensorFlow Keras
- Service in native JavaScript to render past and future weather data in browser.
- Deployed all these components in Google Cloud Kubernetes for scaling and fault tolerance.

#### **Prediction of overall Sale of key Products - Time Series Analysis**

- Implemented a Time Series Analysis based on the given dataset.
- Found the best model to be ARIMA and is used on the given data.
- Predicted the overall sale of 100 key products and also for each key product for each day of the time window using scikit-learn, Pandas and NumPy.

#### **Pipeline Simulation**

- Explains how instructions are processed in each cycle based on their operation type.
- Ideology of Forwarding, when results are obtained in Execution stage, is implemented so that system executes in most efficient way.