

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,

- Coded Python automation script, that reads Android xml files and populates an excel based on constraints.
- 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 of their Unified Android SDK Model.
- Wrote Unit test cases for the Search Library of their Unified Android SDK Model. Used JUnit, Mockito and PowerMockito to implement them and used Jacoco to find code coverage.

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.
- Carried out Production deployments in IBM Cloud and provided production support for Client.

Technical Skills

Languages & Frameworks	Core Java, Python, C, Javascript, Flask, Spring boot, Tensorflow Keras
Tools	JSON, Rabbitmq, Google Cloud, Microservices, Docker, Jenkins, Git, Bitbucket
Databases	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.

Sample Chatbot + Finding all the action words in a Sentence using Flask, NLTK

- Implemented Flask web service which finds all the verbs in a sentence using Natural Language Toolkit and returns them as JSON.
- If no verbs are found, then a suitable logical response for the given text is returned using inbuilt python library, Chatterbot.