

## Sarath Patlolla

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Portfolio: <https://sarathreddy1992.github.io>

### Education

#### Syracuse University

Dec 2018

Master of Science in Computer Engineering

### Relevant Work Experience

#### Precision Vision (System Engineer)

Feb 2018 – Dec 2018

- Accomplished object detection which lead to object identification by images by multifilter cameras installed on a UAV by using NanoNets API.
- Spearheaded in simulating a real time flight movement along with trajectory of gimbal.
- Accomplished in configuring and programming Ethernet 6 multi filter cameras for 12 frames per second and successfully acquired images from the cameras
- Worked on developing a Micro-Controller program which could successfully communicate between the servo on the UAV and the ground station via transfer of data packets between them
- Automated flight movement by configuring the various parameters for different flight modes.

#### Nord Infotech (System Associate)

Aug 2013 – Nov 2016

- Worked on building a web application (Internal Portal) that provided visibility of the company activities to all the employees and worked on building automatic scripts that would optimize work.
- Worked on creating an “outbound calling services” on creating a calendar to interviewer by TA team.
- Administering and helping to manage PPC media strategies for the client quickly and understand and support initiatives that would contribute to the goals and success of client campaigns.
- Worked on building custom application which resides in the server.

### Personal/Academic Projects

#### Tera Sort on Hadoop MapReduce and Spark on AWS

Summer 2018

- Implemented 1TB sort program of Hadoop MapReduce and Spark Framework on 1 node and 16 nodes of AWS EC2. Initiated and implemented scripts for automatic configuration and deployment of Hadoop

**Skills:** Hadoop, MapReduce, PySpark, AWS

#### Who made that movie

Spring 2018

- Built a machine learning model that could predict the success of the movie by quantifying the experience of people behind the movie, and then estimate the success of the movie that were in post- production stage

**Skills:** Python, MapReduce

#### K means Clustering implementation using Spark

Fall 2018

- Implemented K means clustering in Spark on IRIS flower dataset to form clusters of flowers based on different features

**Skills:** PySpark, Python, HDFS, AWS

#### Adversarial Attacks on CNN Based Malware Detection Systems

Spring 2018

- Developed Adversarial examples of clean malware binaries using various techniques and fooled the CNN based malware detection systems by forcing them to misclassify as other malware or a clean file.

**Skills:** Deep Learning, Python, CNN, Keras, Google-TensorFlow, NumPy

#### Neural Machine Translation

Spring 2018

- Implemented a neural machine translation using Recurrent Neural Network (RNN) to translate a given English sentence to Vietnamese language, vice-versa and calculated the BLEU score for the translation

**Skills:** Deep Learning, Python, RNN, Keras, Google-TensorFlow

#### Remote Build Server

Fall 2017

- Built a continuous integration system that takes XML build requests from multiple clients by WPF, build's dll's from XML, request source code files and executes dll's using app domains and finally stores the build and test results in repository server. It uses process pool and WCF for inter-process communication.

**Skills:** C#, WPF, WCF, XML, Socket Programming

#### Remote Code Publisher

Spring 2017

- Built a code publisher that converts source code files into linked web pages, with embedded child links. It allowed the users to upload files and view the remote repository contents. Used sockets and async HTTP style messages to aid in message passing between client and server

**Skills:** C++, XML, Socket Programming

### Language and Skills

**Languages:** Python (Proficient), C, C++, C#, JAVA, HTML5, JavaScript

**Skills:** AWS EC2, EMR, RDS, RedShift, Kinesis, GCP, Keras, TensorFlow, Weka, MS-SQL, Deep Learning, Hadoop, MapReduce, ETL, Spark, HDFS, HIVE, CNN, RNN, SQL server Studio, NoSQL, Cassandra DB