

# Sarath Patlolla

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<https://github.com/sarathreddy1992>

## Education

### Syracuse University

Dec 2018

Master of Science in Computer Engineering

**Coursework:** Advances in Deep Learning, Object Oriented Design, Advanced Data structures, Software Modelling and Analysis, Machine Intelligence with deep learning, Internet Programming.

## Relevant Work Experience

### Nord Infotech

Aug 2013-Nov 2016

- Implementation and integration between Oracle ERP and third-party systems.
- Building custom application which resides in the server.
- Data conversion and building custom flow to handle SLA monitoring
- Worked for the client "Scholastic PS" for enhancing their search page to provide additional search criteria.

### Precision Vision

Feb 2018- Present

- Simulated a real time drone flight movement, cameras frames per second movement
- Programmed GigE cameras and servos for image acquisition and gimbal movement respectively
- Micro-Controller programming for testing the transfer of data packets between servo and ground station

## Language and Skills

**Languages:** Python (Proficient), C, C++, C#, JAVA, HTML5, CSS, JavaScript, Flask, Node.js, Mongo DB, Express.js

**Skills:** Amazon web Services (AWS), Google Cloud Platform (GCP) TensorFlow, PL/SQL, Deep Learning, Tableau, Data-Munging and Data Pre-Processing, Visual Studio, SQL server Studio, NoSQL, Cassandra DB

## Personal/Academic Projects

### Adversarial Attacks on CNN Based Malware Detection Systems

Spring 2018

- Developed Adversarial examples of clean malware binaries using various techniques such as JSMA, L-BFGS, ATN and C&W attack and fooled the CNN based malware detection systems by making them misclassify as other malware or a clean file.

**Skills:** Python, 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 also calculated the BLEU score for the translation

**Skills:** Python, RNN, TensorFlow

### e-Learning Website

Spring 2018

- Built an e-learning website where the users can login via Facebook authentication and enrol to learn the courses present in the website. The users can also add courses and become tutors for the respective courses, course review and live chat feature has also been implemented.

**Skills:** HTML 5, CSS, JavaScript, Mongo DB, Express.js, Node.js

### Fast Style Transfer Using Perceptual Loss

Fall 2017

- Trained a Feed Forward Neural Network for image transformation tasks using perceptual loss functions that depend on a high-level feature from a pre-trained (VGG 19) loss network.

**Skills:** Python, Google-TensorFlow, NumPy

### Health Care Centre Database

Fall 2017

- Designed, Implemented and tested a Database for a health care system.

**Skills:** MySQL

### Remote Build Server

Fall 2017

- Designed a build server that supports continuous integration, i.e. whenever new code is added into the system, the code is tested and build in order and the context of it which calls it. As soon as the test pass, we check in the system and that becomes a part of the current base line of the code.

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

### Remote Code Publisher

Spring 2017

- Designed a message passing communication system between the Sockets. The communication provided the support for passing the HTTP style messages using asynchronous one-way message passing.
- The communication supports sending and receiving streams of bytes.

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

### Type Based Dependency Analysis

Spring 2017

- A code analysis tool which analyses the dependencies among the source code files and stores them in a NoSQL database.

**Skills:** C++,

### Document Handling System

Spring 2017

- Developed a Microsoft like word handling system which supported spell check, word suggestion, auto completion and document retrieval features using data structures such as hash table, trie.

**Skills:** C++, Data Structures