

EDUCATION**SUNY, Stony Brook University, New York, Master of Science in Computer Science, GPA: 3.93/4 08/19 – 12/20**

- Courses: AI, Data Science, Algorithms, System Fundamentals II (Operating Systems), Visualization, Databases.

VIT University, Vellore, India, Bachelors in Electronics and Communication, GPA: 9.41/10 07/13 – 05/17

- Courses: Data structures & Algorithms, Neural Networks, Computer Architecture, Object Oriented Programming.

WORK EXPERIENCE**Software Engineering Intern, Barclays USA****06/20 – 08/20***(Java, Spring Boot, Spring Cloud, Maven, Unix, Git, Jenkins, Chef, Pull Configuration, Zipkin, Hystrix)*

- **Microservices Customer Website:** Developed two microservices to handle user information and perform automatic customer analysis using machine learning, Spring Boot and Spring Cloud.
- **CI/CD Automation using Jenkins :** Created Jenkins pipelines with groovy script to assist with frequent product releases across multiple teams. These pipelines reduced the man hours by **90%**.
- **Infrastructure & Production Bugs:** Wrote code to manage the infrastructure provisioning using the three-tier chef server and node architecture. Fixed the Java JDK compliance issue in the Barclaycard customer website.

Software Engineer, Wipro Digital**02/17 – 07/19***(Machine Learning, Distributed Systems, C++, React, Python, Flask, MongoDB, Linux, Data Science, REST API, S3)*

- **Intelligent fraud detection:** Developed an end to end application to detect fraud in credit card transactions. Improved the fraud **detection rate by 9.2%** which had a positive impact on approximately **100,000** customers. Made use of random forest and unsupervised deep learning models like generative adversarial networks.
- **Auto ML Financial Forecasting :** Developed an Auto ML system to forecast Wipro's revenue from 31 different income sources with a **quarterly accuracy of 99.3%**. Optimized hyperparameters of the LSTM using Bayesian optimization. Performed causal inferencing using Microsoft's DoWhy library.
- **Streaming Platform Autoscaling:** Utilized serverless AWS Lambda and S3 functionalities to auto scale the infrastructure to handle recurring traffic during peak hours.
- **Cognitive Search Engine:** Using IBM Watson's NLU, NLP, Discovery, Knowledge studio to reduce the time required to retrieve answers from structured and unstructured sources.
- **Elastic search:** Set up the cluster to perform various searches using query DSL. Performed powerful real time analytics using aggregations to understand document relevancy and searching.

Software Development and Data Science Competitor, Topcoder**02/18 – 05/19***(Multithreading, Web development, Python, Deep Learning, IBM Watson, IBM Cloud, NLP, System Design, Forecasting)*

- Won **16,000** dollars from seven competitions. **Rank 1** in India Regionals and **Rank 7** worldwide.
- Developed web apps, wrote python projects, built, moved legacy code to modern python, built and deployed machine learning models and performed unit tests. Some of the projects were **multi-threaded clustering on 50k points using C++** to identify best gene, natural disaster chatbots, forecasting applications.
- Among the 78 people who were invited to Topcoder Open 2019 held at Houston, Texas.

SKILLS

- **Languages (3+ years):** Java, Python, C, C++, Groovy
- **Web:** HTML5, CSS, jQuery, React.js, D3.js, JavaScript
- **Tools & Frameworks:** MapReduce, Flask, Spring Boot, Junit, Pandas, Spark, scikit-learn, Keras, NLTK
- **Cloud & Databases:** MySQL, MongoDB, AWS (S3, EC2, Lambda), DB2, Hadoop, IBM Cloud
- **Operating Systems & Tools:** Windows, Linux, IntelliJ, Jenkins, Git, Chef, Maven, Unix, Valgrind, GNU
- **Other:** Microservices, Web development, Deep Learning, System Design, Forecasting, Distributed Systems

PROJECTS**Pseudo-cache-based Map Reduce Application** *(Java, AWS EMR, HDFS, Apache Spark, Db2, Docker)***Feb 2020**

- Analysed disease infection rates with MapReduce jobs using distributed cache, broadcast variables on HDFS.
- Used HDFS files, AWS EMR elastic Map-reduce and Java. Optimized the app by converting the app to Spark.

Automated Redistricting System *(Java, Spring Boot, JavaScript, Apache Kafka, MySQL, Avro)***Jun 2020**

- Generates state-wide congressional districts in accordance with constitutional guidelines and user preferences.
- Developed CRUD REST services using Spring Boot and Spring JPA to handle requests by preferences.
- Built a Kafka pipeline to process data in real time, reduced data size by 33% using Avro data serialization system.

Custom Linux Shell *(C, Unix, low-level Unix/POSIX system calls, I/O Redirection, signal handling)***Oct 2019**

- Implemented a job spooler program that accepts user requests to spool tasks for execution, cancel jobs, pause and resume jobs, show the status of jobs, and expunge terminated jobs from the system.

Server-based Trading Platform *(C, Multithreading, semaphores, concurrency, socket programming)***Nov 2019**

- Designed a trading app with the use of threading to bid/sell shares given by multiple users in real-time. The app supports multiple users and also handles concurrent requests while being highly available.

IBM Call for Code, Chatbot for Natural Disasters *(Python, Twilio, Google APIs, IBM Watson, AWS, NLP)***Dec 2018**

- Using IBM Watson's NLU and Conversation APIs the bot classifies the situation into three types. It sends the location and messages to a nearby responders(DB2) using Google geo location and Twilio APIs.