James Rohan Gangavarapu

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EDUCATION

GEORGIA INSTITUE OF TECHNOLOGY — Atlanta, GA | May 2020
MS Computer Science (Computing Systems and ML)

GEORGIA STATE UNIVERSITY — Atlanta, GA | December 2017
BS Computer Science (Software Systems), Minor: Mathematics; Cum Laude

EXPERIENCE

GRADUATE TEACHING ASSISTANT, GEORGIA TECH — Atlanta, GA | January - Present 2019
- Graduate Teaching Assistant for CS 6515: Graduate Algorithms and CS 4540: Advanced Algorithms

TECHNOLOGY INTERN, LexisNexis — Atlanta, GA | May - July 2019
- Software Engineering Intern, automated Service Level Agreements (SLA's) discovery for Service Management Group

APPLICATION DEVELOPMENT INTERN, RESULTS COMPANIES — Atlanta, GA | May - July 2018
- Part of a multinational Software Engineering Team in a Scrum setting. Designed the user notification system for ERM system (private web app). Reduced database reads from 10,000 per minute to 2 per minute. Analyzed complex business processes and business rules to develop system requirements and investigated ETL stored procedures

DATA SCIENCE AND MANAGEMENT INTERN, INDIAN INSTITUE OF MANAGEMENT — Online | June - July 2017
- Analyzed data sets and critiqued best business practices vis-à-vis Big-Data, Data Analytics and Data Driven Business Management. Built a linear regression model for Room Rent using R, analyzed Hotel related data of 42 different cities

PROJECTS

POMODORO RESTful API — May 2019
- Developed Micro Services based RESTful API for Pomodoro backend in CS 6301 Advanced Software Engineering. Jenkins (CI/CD), Flask and Marshmallow (Python), JUnit, SQLite, Git

DYNAMO KEY VALUE STORE (CS 6210) — May 2019
- Implemented Dynamo [DeCandia et al.] using consistent hashing, gRPC, eventual consistency, and high availability using replication

FLAT FILE SYSTEM (CS 6210) — April 2019
- Implemented a flat file system that offers persistence and crash recovery guarantees using recoverable virtual memory

CREDITS BASED CPU SCHEDULING ALGORITHM (CS 6210) — February 2019
- Implemented User Level Threads library using a credits-based CPU scheduling algorithm. Report: tinyurl.com/y5xwzxl5

TINY FILE SERVICE (CS 6210) — February 2019
- Tiny File Compression Service using snappy compression for system processes, using POSIX IPC and Shared Memory

CONTACTS RESTFUL API (CS 6301) — February 2019
- Built a Microservices based RESTful API for a Contacts Application

PERSONAL PROJECTS — Present 2018-2019
- **Percolation Threshold:** MC Algorithm to estimate the Percolation Threshold of an NxN grid (Union Find and Java)
- **A* Search:** Developed A* search algorithm to solve the N-Puzzle problem (Priority Queue and Java)

HANGMAN, APPLICATION LAYER PROTOCOL — December 2018
- Developed a globally distributed multiplayer hangman game using Java

MULTI USER GROCERY LIST, ANDROID APPLICATION (TEAM LEAD) — August-December 2017
- Created a Multi User Grocery List Android App using a remote MySQL database, Android SDK, Android Studio, GitHub

VIRTUAL TRAVEL AGENT, WEB APPLICATION (TEAM LEAD) — August-December 2017
- Web based Virtual Travel Agent (HTML, CSS, PHP, JavaScript, jQuery, MySQL) that could book flights, reserve parking, rent cars and track purchases

MACHINE LEARNING (TEAM LEAD) — August-December 2017
- Predicted Missing Gene Micro Array Data using PCA, imputed and classified new instances, using Random Forest in R

SKILLS

BUILD TOOLS: Make, Gradle
PROGRAMMING LANGUAGES: Java, C, Python, C++, R, JavaScript, PHP, Oracle Certified Associate Java I
WEB FRAMEWORKS: gRPC, jQuery, AJAX, SOCKETS, HTML, CSS
CI/CD: Jenkins
DATABASE: SQL (SQL Server, MySQL, MariaDB)
OS: Linux, Windows
VERSION CONTROL SYSTEMS: Git

NOTABLE ACCOMPLISHMENTS

HACK GSU 2017 JUDGE, MLH Hackathon | WEB MASTER, ACM GSU | LEAD FULL STACK WEB DEVELOPER, CSC CLUB GSU