

# Krishna Praneet Gudipaty

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## EDUCATION

### University of Massachusetts Amherst

Master of Science in Computer Science

Courses: Theory & Practice of Software Engineering, Machine Learning, Quantum Information Systems

Amherst, MA, USA

Sep 2022 - May 2024

CGPA: 3.90/4.0

### Indian Institute of Technology Madras

Bachelor of Technology in Metallurgical and Materials Engineering

Courses: Data Structures and Algorithms, Cloud Computing, Machine Learning, Numerical Methods, Linear Algebra, Probability & Statistics, Computational Engineering

Chennai, TN, India

Aug 2016 - Dec 2020

CGPA: 8.75/10.0

## WORK EXPERIENCE

### Deskera

Software Development Engineer

Pune, MH, India

Dec 2020 - Jul 2022

- Developed webhooks microservice using Springboot and Apache Kafka for no-code workflow integrations for CRM and HRMS apps
- Researched and developed unified cart integration interface to automate inventory and payments synchronization with e-retail stores
- Optimized performance for large scale data transfer through events and multi-threading on multiple AWS servers using Kubernetes
- Onboarded senior and junior team members onto the cart integration project and compiled user and developer documentation

### Publicis Sapient

Software Engineer Trainee - Intern

Bangalore, KA, India

May 2019 - July 2019

- Developed a trading platform for transacting funds with short-term maturities and tracking their performance using Java Springboot
- Built client facing application for trading, fund finder and portfolio management using ReactJs and Redux for state management

### Boeing

Research Intern - ADR Software

Bangalore, KA, India

Jun 2018 - Jul 2018

- Researched and developed algorithm for defect recognition which is forecasted to improve the efficiency of NDT process by 50%
- Achieved a mean accuracy of 95% on quantifying the volume of defective segments through the use of the proposed algorithm

## TECHNICAL ABILITY

- Languages:** Java, Python, PostgreSQL, C++, JavaScript, HTML/CSS
- Libraries:** ReactJS, NumPy, Pandas, Matplotlib, PyTorch, PySpark, Tensorflow, Scikit-Learn
- Tools/Frameworks:** Springboot, Amazon Web Services (AWS), Apache Spark, Apache Kafka, Docker, Kubernetes, Jenkins, Maven, Gradle

## PROJECTS

### Elevation based Navigation System | [Frontend](#) | [Backend](#)

Oct 2022 - Dec 2022

- Built a navigation app using JS and React to suggest shortest path, considering elevation gain along the route for hikers and bikers
- Achieved an improvement in runtime performance of 4x by experimenting with Dijkstra's and A\* algorithm against classical BFS

### Rooters - Startup | [Scraper](#)

May 2020 - Jul 2020

- Collected bus route traffic and seat availability data for Southern India for market research through Python using Selenium webdriver
- Designed database schema and microservices-based system architecture in Django and compiled software requirement specifications

### Machine Learning for predicting Platinum force fields | [Thesis](#) | [Presentation](#)

Jan 2020 - May 2020

- Researched on a non-linear Machine Learning based framework for statistically predicting Platinum force fields from coordinate data
- Developed a numerical fingerprinting algorithm for representing invariance in translation and rotation of 3D data to feature vectors
- Achieved performance of 1-5% variation in MAE using a tuned Kernel Ridge Regression model using 10-fold cross validation method

### Spark Tweet Streaming application | [Code](#)

Jan 2020 - May 2020

- Built a Spark Streaming application for retrieving and segregating live tweets based on geographic origin using PySpark and Kafka
- Analyzed and identified frequent words and word associations using MLLib's FP-growth algorithm for the last 10-minute interval
- Deployed application on GCP using Compute Engine and created a UI with options to adjust mining parameters and view results

## ACHIEVEMENTS

- Codesignal:** Achieved a high score of 841 out of 850 on Codesignal Technical Coding Assessment
- Certification:** Amazon Web Services (AWS) Certified Cloud Practitioner CLF-C01