

KARTHIK BODDU

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EDUCATION

MONTCLAIR STATE UNIVERSITY

Masters in Computer Science

Montclair, NJ

Expected May 2024

WORK EXPERIENCE

MONTCLAIR CESAC

Software Developer | Research Assistant

Montclair, NJ

May 2023 – Jan 2024

- Implemented **REST API** using **Spring Boot**, interaction with **Machine Learning** model. Data filtering with **Python**.
- Developed **asynchronous processing** and **caching** to boost system throughput by **40%** and reduce latency by **30%**.
- Tested by simulating over **100,000 concurrent Requests**, Protected API from **DDos** attacks and **pagination** attacks.

INDIAN SERVERS

Software Developer Intern

Vij, INDIA

Jun 2021 – Dec 2021

- Implemented scalable microservices architecture using **Spring Boot**, results in a **30% improvement** in response time..
- Orchestrated communication using **Apache Kafka**, processing over **1 million messages per day with 99.9%** uptime.
- Leveraged **Spring Security** to implement **OAuth2** and **JWT** for authorization across microservices.
- Implemented comprehensive unit and integration testing using **JUnit** and **Mockito**, achieving **90% code coverage**.

PROJECTS

SELF DRIVING VEHICLE | [link](#)

Spring, Fall 2023

- Successfully led a robotics Team, **Increase in 95% speed control** by replacing the mechanical parts with correct electronics.
- Achieved **90%** accuracy with **Autopilot & End-to-End Cloning**. Boosted the dev process by **10x times** by simulations.

LOW - RESOLUTION PEDESTRIAN DETECTION | [link](#)

Spring 2024

- To prevent night time accidents, Developed this ML model achieved **90% accuracy** using Stationary Wavelet Transformation
- Fixed: Data Quality Issues, Overfitting, Improper decomposition and Tuning, achieved **10x** app speed.

TACO CLOUD (Java MicroService Application) | [link](#)

Tech Stack: (**Spring Boot,MVC, Webflux, Security, Data**) , **Kafka, RabbitMQ, Cassandra, MangoDB**

- Architected & Developed multi-module project with **15 distinct modules** (API, email, JMX, Messaging, Security, UI, Web)
- **Spring Actuator for real-time monitoring**, improving system observability and reducing mean **time to resolution by 35%**.

REAL TIME NOTES TAKING APP | [link](#)

Tech Stack: **Reactjs, Nodejs/ Java (Spring), Socket.io, MangoDB, AWS/heroku**.

- Developed a Full Stack App, Mainly Resolves : multiple users are writing simultaneously with Operational Transformation.

SKILLS | AWARDS | PUBLICATIONS

Technical Skills : JAVA, SQL, Python, JavaScript, Spring Framework (Boot, MVC, WebFlux, Data, Security), NEXT.JS,ReactJS
Mysql, Cassandra, MangoDB, Kafka, RabbitMQ, Docker, Maven, npm, pip, AWS.

Achievements:

2022 National wide TCS HackQuest Finalist	2018 (1/300) CS DSA coding Competition;
2021 (1/100) Engineering Technical Quiz Competition	2016 Statewide Awarded with 100% Fee Reimbursement for 6 years.
2019 (3/40) Technical Model Exhibition Competition;	

Publications: K. Boddu, S. M, and S. N. "Tracking missing objects in a video using yolo3 in cloudlet network." | [link](#)
Y. T. Karthik Boddu, L. B. "Classification of ImageNet retinal diseases using ResNet model" | [link](#)