

# Karthik Boddu

New Jersey | Open To Relocate | [krk02411@gmail.com](mailto:krk02411@gmail.com) | [Linkedin](#) | [Github](#) | [Portfolio](#)

## EDUCATION

**MONTCLAIR STATE UNIVERSITY**  
Masters in Computer Science

Montclair, NJ  
Graduated May 2024

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY( VRSEC )**  
Bachelors in Engineering

**INDIA**  
Graduated May 2022

## WORK EXPERIENCE

**MONTCLAIR ANALYTICS CENTER**  
Software Developer

Montclair, NJ  
Feb 2023 – April 2024

- Built a **Spring Boot REST API** for AI model interaction, using **AWS EC2, caching, and database** to improve performance by **40%**.
- Developed **Java asynchronous processing** and redis **caching** to boost API, reduced latency by **70%** under heavy load conditions.
- Optimized **SQL** indexing, query performance by **70%** across **50+** tables and reducing database load by **40%**, **3x** app response time.
- Utilized **Docker** containers to standardize dev env, increased team productivity by **30%** & eliminated "works on my machine" issues.

**INDIAN SERVERS**  
Software Developer

Vij, INDIA  
March 2021 – April 2022

- Implemented **OAuth 2.0 and JWT** authentication, enhancing **API security** and reducing unauthorized access attempts by **95%**.
- Engineered automated testing with **JUnit & Mockito**, increased code coverage from **60% to 95%** & reduced post-release bugs by **75%**.
- Refactored legacy monolithic application into **microservices**, resulted in **50%** faster feature deployments and **70%** reduction in downtime.
- Architected responsive **UI** using **Swift and UIKit**, improved user engagement by **40%** and reduced bounce rates by **25%**.

## 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.
- Persisted for **9 months** to learn new computer Vision concepts and successfully completed the project **2x times** fast.

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

Spring 2024

- To prevent night time accidents, Developed this ML model achieved **90% accuracy** using Stationary Wavelet Transformation
- Utilized **AWS Lambda** runs code in response to events, allowing for **real-time data processing** without manual intervention
- 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**), **GraphQL, 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, TypeScript, Spring Framework ( Boot, MVC, WebFlux, Data, Security), ReactJS, Mysql, MangoDB, GraphQL, Docker, Maven, npm, Storybook, pip  
AWS Cloud Migrations Lambda, EKS, DynamoDB, Terraform Development, iOS and/or Android mobile development, Prometheus, Grafana, Thymeleaf templates.

### 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](#)