

# SAIHARSHITH KARUNEEGAR RAMESH

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## EDUCATION

### MASTER OF COMPUTER SCIENCE

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN ; GPA : 4.0/4.0

December 2023

Illinois, USA

### BACHELOR OF ENGINEERING IN COMPUTER SCIENCE

ANNA UNIVERSITY ; GPA : 9.54/10.0

May 2021

Chennai, India

## TECHNICAL SKILLS

### Languages

Java | Javascript | C++ | Python | SQL

### Technologies / Frameworks

Spring Boot | Node.js | Express.js | MongoDB | Mongoose | GraphQL | MySQL | React.js | Git |  
Neo4j | AWS | Apache Kafka

## PROFESSIONAL EXPERIENCE

### SOFTWARE ENGINEER @ FRESHWORKS

Jul 2021 – April 2022

Java | MySQL | Spring Boot | Apache Kafka | AWS | REST API

Chennai, India

- Re-engineered the background server of Freshworks' CRM by transitioning from a monolithic architecture to a **multi-layered microservices** architecture. This reduced the network traffic overload by **40%**, optimizing system performance and reliability.
- Engineered a substantial enhancement in email deliverability by redesigning the sign-up process. This led to a **50%** reduction in the overall spam score percentage of the product, underscoring a commitment to delivering a **superior user experience**.
- Significantly improved the system efficiency by streamlining the sign-up request processing, achieving a **30%** reduction in the processing time. Implemented an **asynchronous** sign-up callback process for responsiveness and resource utilization.
- Enriched the email-deliverability metrics by **40%** by introducing de-duplication algorithms. Leveraged technologies, such as Redis Cache, to optimize data management and ensure the highest level of data integrity.

### SOFTWARE ENGINEER INTERN @ FRESHWORKS

Feb 2021 – Jun 2021

Java | MySQL | Spring Boot | Ember.js | Apache Kafka | AWS | REST API

Chennai, India

- Collaborated with the Freshsales product team to successfully implement a new landing page feature in the customer timeline within a **2-day** timeframe, adhering to the customer's specified deadline.
- Improved the product build time by upgrading the build tool (**Gradle**), resulting in a reduction from >13 minutes to 8 minutes.

## ACADEMIC EXPERIENCE

### GRADUATE TEACHING ASSISTANT @ UIUC

Aug 2023 - Present

CS 222 - Software Design Lab

Illinois, USA

### GRADUATE RESEARCH ASSISTANT @ NCSA, UIUC

Jan 2023 – Aug 2023

Python | Computer Vision | MySQL

Illinois, USA

- Designed and developed a YOLOv8 system to detect vehicles and measure each detected vehicle's position over time using the **DEEPSORT** algorithm to calculate its acceleration, providing valuable insights into traffic flow and patterns.
- Engineered a real-time data transmission system to seamlessly transfer vehicle acceleration data and camera positioning details to a **MYSQL** server.

## PERSONAL PROJECTS

### TAG-ME-IN

- Built a carpooling application that helps the University of Illinois students find people going to similar places and tag along.
- Built the front-end using React.js, the back-end using Node.js and Express.js, and used MySQL for the database.
- [github.com/harshith2000/TagMeIn](https://github.com/harshith2000/TagMeIn)

### THE DISEASE PREDICTOR

- Built an android application using **Java** that predicts different types of external diseases with an image input using **Convolutional Neural Networks** with **89%** accuracy. Created the dataset from scratch by web scraping.
- Won the **Most Feasible Project Award** in a 36-hour hackathon conducted by ACM, SVCE.
- [github.com/harshith2000/The-Disease-Predictor](https://github.com/harshith2000/The-Disease-Predictor)

## EXTRACURRICULARS & LEADERSHIPS

- Vice President @ Know-I (AI Research Club)
- Joint Secretary @ The Association of Computer Engineers

June 2020 – Apr 2021

June 2019 - May 2020