

# SAIHARSHITH KARUNEEGAR RAMESH

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## EDUCATION

### MASTER OF COMPUTER SCIENCE

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

Graduate Research Assistant @ NCSA, UIUC

Dec 2023

Illinois, USA

### B.ENG IN COMPUTER SCIENCE

ANNA UNIVERSITY ; GPA : 9.54/10.0

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

May 2021

Chennai, India

## EXPERIENCE

### SOFTWARE ENGINEER @ FRESHWORKS

July 2021 – April 2022

BACK-END | JAVA | MySQL | SPRING BOOT | REST API

Chennai, India

- Upgraded the build tool (**Gradle**) used in the product, reducing the build time to 8 minutes from >13 minutes.
- Reduced the network traffic overload of the Freshmarketer product by >40% by changing the product's **monolith** background server to multiple layers of **microservices**.
- Reduced the processing time of the sign-up requests by 30% by making the sign-up callback an **asynchronous** process.
- Improved the email deliverability of the product by disabling the outgoing email services of new users with low spam scores, reducing the overall spam score percentage of the product by 50%.
- Introduced a separate email domain for free and paid customers by checking the version of the product that the customer has purchased.

### SOFTWARE ENGINEER INTERN @ FRESHWORKS

Feb 2021 – June 2021

BACK-END | JAVA | MySQL | SPRING BOOT | REST API

Chennai, India

- Developed a **Staging Stack system** for Freshmarketer's test engineers where they can update and release the usage of different test stacks.
- Developed de-duplication algorithms to ensure appropriate email-deliverability metrics with the help of **Redis Cache**.
- Collaborated with the Freshsales product team and added a **new landing page feature** in the customer timeline within 2 days, meeting the customer's deadline.

## PERSONAL PROJECTS / PUBLICATIONS

### TAG-ME-IN

Node.js | EXPRESS | MySQL | ReactJS

- Built a carpooling application that helps the University of Illinois students to find people going to similar places and tag along with them.
- [github.com/harshith2000/TagMeIn](https://github.com/harshith2000/TagMeIn)

### THE DISEASE PREDICTOR

PYTHON | JAVA

- Built an android application that predicts different types of external diseases on eyes, skin, mouth, and nails 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)

### FARMER'S BOOK

BACK-END | MySQL | REST API

- Built a Web Application for farmers through which they can trade crops, post their problems and get solutions from fellow farmers.
- [github.com/harshith2000/Famersbook](https://github.com/harshith2000/Famersbook)

## RESEARCH EXPERIENCE

### APPLICATION OF RANDOM FORESTS FOR AIR QUALITY ESTIMATION IN INDIA BY ADOPTING TERRAIN FEATURES.

Publisher: IEEE

- Built a Regression model which predicts the Air Quality Index (AQI) of any Indian city using its terrain features with an accuracy of 88%.
- [ieeexplore.ieee.org/document/9315252](https://ieeexplore.ieee.org/document/9315252)

## TECHNICAL SKILLS

### Languages

C++, Python, Java, SQL, Javascript

### Tools & Frameworks

Git, MySQL, MongoDB, Neo4j, Spring Boot, Node.js, React.js, Apache Kafka, AWS, Linux.