

SAIHARSHITH KARUNEEGAR RAMESH

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EDUCATION

MASTER OF COMPUTER SCIENCE

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

Dec 2023

Illinois, USA

B.ENG IN COMPUTER SCIENCE

ANNA UNIVERSITY ; GPA : 9.54/10.0

May 2021

Chennai, India

TECHNICAL SKILLS

Languages

C++, Python, Java, SQL, Javascript

Tools & Frameworks

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

EXPERIENCE

GRADUATE RESEARCH ASSISTANT @ NCSA, UIUC

Jan 2023 – Present

PYTHON | COMPUTER VISION

Illinois, USA

- Created a robust system using **YOLOv8** that can accurately identify and track vehicles in real-time while providing valuable insights into their movements with over **90%** accuracy.
- Developed the model to measure each detected vehicle's position over time using the **DEEPSORT** algorithm, to calculate its acceleration, which can provide valuable insights into traffic flow and patterns.

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 the 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

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

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

EXTRACURRICULARS & LEADERSHIPS

VICE PRESIDENT @ KNOW-I (AI RESEARCH CLUB)

June 2019 – Apr 2021

EX - JOINT SECRETARY @ THE ASSOCIATION OF COMPUTER ENGINEERS

Anna University

- Organized various technical and non-technical events, including Coding Competitions, Seminars, and Paper Presentations.
- Conducted seminars where I got the opportunity to teach the fundamentals of CS to my juniors.
- Organized two national-level technical symposiums and a 24-hour hackathon.