SURYAANSH RATHINAM

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EDUCATION

National University of Singapore **Aug 2024 - Dec 2025**
Masters of Computing (AI Specialization)

- Neural Networks and Deep Learning, AI Planning and Decision Making, Distributed Systems, Knowledge Discovery and Data Mining

Manipal Institute of Technology **Sep 2020 - Jul 2024**
BTech, Computer Science Engineering GPA: 9.47

SKILLS

- Programming Languages: Python, C, C++, Java, JavaScript, Typescript
- Full-stack Development: React, Next, Vue, Angular, Node, Express, Nest, PHP, Django, FastAPI.
- Database Systems: MongoDB, MySQL, Redis, Postgres, TypeORM
- Cloud and Devops: AWS, Firebase, Git, Docker, GCP
- Other: Selenium, Appium, React Native

WORK EXPERIENCE

Moneyflo - Full Stack Developer **Mar 2023 - Jun 2024**

- Implemented an **AI assistant** using OpenAI's GPT-4o model, seamlessly integrated into a dashboard, enabling clients to effortlessly extract deeper insights from data and make informed decisions increasing time spent using product by 25%.
- Utilized NextJS, Firebase on client side and utilized **NestJS**, **FastAPI** to build endpoints for application and **AWS S3, Lamba** and **EC2** were leveraged, to store and process large quantities of client data.

Indian Institute of Technology, Kharagpur - Research Intern **Jun 2023 - Aug 2023**
Indian Institute of Technology, Kharagpur

- Developed and fine-tuned a pre-trained **U-Net** model for **image segmentation**, further trained on 300 ultrasound images, after cleaning and pre-processing data, and fine tuning the model to obtain an accuracy of **99.2%** for classification and identification of different regions of the kidney.

Ridecell - Software Engineering Intern **May 2022 - Aug 2022**

- Employed as a part of the **QA and automation** team, working with 3 team members on testing and debugging of API endpoints and Mobile App, leveraging **Testrail** for managing test cases.
- Ensured smooth functioning of the API endpoints and Mobile app primarily using **Python, Selenium, Pytest**, and **Appium**.

PROJECTS

Distributed Maze Runner: A Fault-Tolerant Peer-to-Peer Game System: **Sept-Oct 2024**
Implemented **multi-threaded** server logic with dynamic server swapping for continuous operation, handling player crashes and asynchronous movements. Used **TCP/Java RMI** for reliable messaging and constructed a tracker-based **player registry to enhance peer discovery and reduce system load, demonstrating** fault-tolerance **in gaming.**

Manipal Institute of Technology **Aug- Oct 2023**
Built a **web-scraping and automation** tool using **Selenium** and **Python** automating the process of data collection and formatting it in the required format from the university portal, earlier done manually by professors, it is now done using software by 200+ faculty across university, reducing time taken for the task by more than **90%**.

PUBLICATIONS

- Exploring IoT-Blockchain Integration in Agriculture: An Experimental Study - Published in IEEE Access
- Survey of the use of AI models and techniques in the analysis and prediction of neuro-degenerative diseases- Presented at AICECS 2023 and Published in IOP: Journal of Physics (Volume 2751)
- Analysis and Comparison of Different Frontend Frameworks- Presented at ATIS 2022 and Published in Springer's CCIS Series (Volume 1804)