MOHAN SAI GANESH KANNA

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EDUCATION

University of Southern California | Los Angeles, California, USA   **August 2023 – May 2025**
Master of Science, Computer Science   GPA: 3.9/4
Coursework: Analysis of Algorithms, Database Systems, Web Technologies, Information Retrieval, Machine Learning for Data Science

SKILLS

Programming: Python, Java, C++, JavaScript, Kotlin, R, C, PHP, SQL
Web Technologies: Express.js, React.js, Node.js, HTML5, CSS3, Bootstrap, AJAX, RESTful API, Flask, JSON, Android Studio
Databases & Cloud: MongoDB, MySQL, NoSQL, PostgreSQL, Oracle Database, MS SharePoint, Firebase, AWS, GCP
Tools & Frameworks: Git, Postman, Visual Studio Code, Sublime Text, Docker, Selenium, Keras, TensorFlow, PyTorch, Scikit-learn
Data & Libraries: PowerBI, Microsoft Excel, NumPy, Pandas, Polars, Matplotlib, OpenCV, NLTK, XGBoost, LightGBM, Hadoop

EXPERIENCE

Harman International, (A Samsung Company) | Bengaluru, India
Software Engineer - 1   **March 2023 - June 2023**
- **Tech Stack - Android, Stable Aidl, C++, Java, Rapid Json, IOC, SomeIP, Multi Core IPC, DSI.**
- Transformed RPC, enabling cross functional teams across domains at Harman achieving 50% faster feature deployment cycles.
- Optimized inter-service communication by engineering a Harman-specific RPC, resulting in a 30% increase in overall efficiency.
- Increased data transfer efficiency by 20% by implementing a client-server architecture deploying stable AIDL to replace HIDL.
- Teamed with 10 members and coordinated with five senior product managers towards launch of Harman's East-West gateway.

Associate Software Engineer   **October 2020 – February 2023**
- **Tech Stack - Adaptive Autosar, Linux, Common API, OpenSSL, DAC, MAC, AX8 Softcore.**
- Reduced report generation time by 75% through automation of unit test document creation, saving 100 man hours per week.
- Developed an Service API-based RPC integration strategy improving system throughput by 40%, boosting reliability.
- Created a Common API-based RPC to replace existing API, accelerating event communication speed between ECUs by 25%.

Matchday AI (Acquired by GameTheory) | Hyderabad, India
Machine Learning Intern   **December 2019 - June 2020**
- **Tech Stack - Python, Computer Vision, Transfer Learning, Deep Learning, Flask, Anaconda.**
- Engineered an Automated Player Tracking system using Deep Learning and OpenCV in a multi-camera environment, enhancing real-time analytics for major tournaments(Premier Badminton League), reaching a peak viewership of 1.5 million.
- Collaborated with Star Sports broadcast crew to deliver real-time statistics with valuable insights and transforming user experience.

PROJECTS

Stock Search | Links – Responsive Website, Static Website, Mobile Application   **February 2024 – April 2024**
- **Tech Stack - Python, Flask, MongoDB, Express.js, React.js, Node.js, RESTful API, Javascript, Kotlin.**
- Constructed a responsive real-time stock trading website using the MERN stack and an Android app using Kotlin.
- Developed features including buy/sell stocks, watch-list, portfolio, and interactive stock graphs for enhanced user engagement.

X-Change VIT   **January 2019 – March 2019**
- **Tech Stack - HTML5, CSS3, Javascript, Bootstrap, PHP, SQL, MySQL, Firebase, Android Studio.**
- Orchestrated an online, real-time platform streamlining hostel room allocation for students at VIT, aims to reduce end-to-end process time from one month to 3-5 business days (VIT Hostels accommodate over 20,000 students).
- Crafted Functional MVPs (Web and Mobile applications), enabling students to search for vacant hostel rooms in real-time.

PUBLICATIONS

Infrared Image Detecting System Model to Monitor Human with Weapon – Link   **September 2018**
- Proposed an Inception-v3-based infrared image detection system with 99% accuracy to monitor and classify individuals carrying weapons for sandalwood protection, using the OTCBVS 'Terravic Weapon Infrared Database', outperforming previous models.

Vehicle Hacking Vulnerabilities In Driver Less Car – Link   **June 2018**
- The paper discusses vulnerabilities in driver less cars, highlighting that modern vehicles contain 30-100 embedded control units, making vehicles susceptible to hacking, potentially allowing manipulation of critical functions like braking and steering.

ACHIEVEMENTS

- AUG-2024 – Ranked in top 2% of 481 students in Web Technologies and awarded one of 7 grader positions by Prof. Marco Papa.
- SEP-2022 – Ranked in top 11% of 232 colleagues in Harman's C++ assessment, securing 27th place overall.
- JUN-2022 – Recognized as best performer of PI-Y22-01 after executing an efficient strategy for integrating Remote Procedure Calls.
- MAR-2022 – Awarded Star Performer of the Month in the Base Software Division for improving system performance by over 40%.
- JUL-2021 – Star Performer of PI-Y21-02 for delivering the Common API features to the Telematic Business Unit.