# MOHAN RAJ CHANDRASEKAR

📱 669-251-6305  |  ✉ mchandrasekar@scu.edu  |  in linkedin.com/in/mohanraj-chandrasekar/  |  🌐 Portfolio  |  ⓞ GitHub

## Summary

- Versatile software engineer with 4 years' experience in full-stack development, cloud computing, and open-source contribution. Proven expert in delivering innovative solutions, enriching ML and distributed systems communities, and excelling in hackathons.

## Skills

- Java | JavaScript | C# | Golang | Ruby | Rust | Python | TypeScript | React | Redux | R | Dart | PHP | Scala | C | C++ | NodeJS | Clojure
- SQL | NoSQL | Hadoop | Spark | Kafka | Hive | Redis | Spring | Shell | Docker | Kubernetes | Jenkins | TensorFlow | PyTorch | Swift | Kotlin
- AWS | Cloud Computing | Azure | Microservices | Full-Stack | Android | iOS | Cybersecurity | Linux | DevOps | Git | Agile | OOP | CI/CD

## Professional Experience

**Full Stack Developer Intern**          **Feliciti.co**          *San Francisco, CA*          **07/2023 - Present**

- Developing a full-stack messenger application utilizing MongoDB, Express.js, React.js, and Node.js, aimed at enhancing user communication and operational efficiency.
- Implementing an AI-driven matching algorithm using principles of Machine Learning and Generative AI, targeting an increase in user match precision and improving the co-living experience for diverse user groups.
- Integrating a chatbot into the messenger service using Natural Language Processing (NLP) and Language Models (LLM) with the goal of enhancing user interaction and reducing response time.

**Research Assistant**          **Human Computer Interaction Lab**          *Santa Clara, CA*          **11/2022 - Present**

- Under Dr. Kai Lukoff, Experimented with fine-tuning a neural network, aiming to classify Reddit users based on their interaction with subreddits. This novel approach resulted in a **30%** increase in user classification accuracy, significantly improving the user experience.
- Implemented advanced data cleaning methods utilizing spaCy and textacy libraries, successfully extracting meaningful information from an expansive Reddit dataset. This process increased data accuracy by **30%**.

**Member Technical Staff**          **Zoho Corporation**          *Chennai, India*          **02/2020 - 09/2022**

- Led the development and implementation of a critical 'Instant Messaging' feature on Zoho Desk, facilitating seamless communication between customers and businesses across various popular IM channels including WhatsApp, Telegram, LINE, and WeChat.
- The Instant Messaging feature, built with Java, HBase, Kafka, and Redis and utilizing Websockets for real-time data transmission, managed efficient server-client communication, effectively handling up to **2 Million** requests.
- Through strategic re-architecture of the existing system and utilization of Python, R, Pytorch, Tensorflow, and Scikit-Learn, achieved a **30%** boost in ZIA Anomaly prediction effectiveness and incorporated a Business Hours prediction algorithm.
- Played a pivotal role in mentoring new Software Developers, facilitating knowledge transfer, and continual learning in the team

**Member Technical Staff**          **Zoho Corporation**          *Chennai, India*          **07/2018 - 02/2020**

- Revamped the core architecture of DB Synchronization for interconnected products using advanced technologies like Java, RESTful APIs, RabbitMQ, and Parallel Computing, incorporating the Pub/Sub model. This overhaul boosted system efficiency and throughput by **50%**.
- Implemented full automation of synchronization among integrated products, bolstering data transmission efficiency and cutting latency by **60%**, while ensuring secure operations. This optimization also brought processing times down from **hours** to mere **minutes**.
- Introduced priority levels within modules and integrated parallel computing, which notably boosted the data transfer limit by **1 Million** and implemented thorough audits. This enhancement boosted system performance and trustworthiness.
- Engaged in on-campus recruitment, conducting interviews to shortlist candidates from a **1,000**+ student pool.

## Education

**Master of Science**          **Santa Clara University**          *Santa Clara, CA, USA*          **09/2022 - 03/2024**

- Major in Computer Science and Engineering. [Coursework: Data Structures and Algorithm, Artificial Intelligence, Computer Architecture]

**Bachelor of Science**          **Anna University**          *Chennai, India*          **06/2014 - 06/2018**

- Major in Computer Science and Engineering. [Coursework: Distributed Systems, Cloud Computing, Operating Systems, Network Security]

## Projects

- **Open Source Contributor:** Contributed to key open-source projects in distributed systems and machine learning including ray.io, TensorFlow, and Apache Flink, enhancing scalability, performance, thereby accelerating model training and data processing. **(Present)**
- **Transformers-Based Sentiment Analysis System:** Developed a sentiment analysis model utilizing Hugging Face Transformers, improving accuracy by 15% on a 2 Million-Tweet dataset, demonstrating adept utilization of open-source LLM's. **(04/2023)**
- **Automated Text Classification:** Leveraged Python and Rust to design an automated text classification system using spaCy, achieving an F1 score of 0.85 over a corpus of 500k documents, highlighting expertise in various ML platforms. **(02/2023)**

## Achievements

- **Hack For Humanity:** Won hackathon empowering kids' online safety with parental control among **350+** participants. **(02/2023)**
- **INRIX Hack:** Clinched victory in an extensive Hackathon featuring over **250+** competitors, recognized by the CEO of INRIX. **(11/2022)**