

MADHUMITHA SETHAIAH

madhumithaseshaiah@gmail.com | +1 (872) 277-3993 | [\[LinkedIn\]](#) | [\[Github\]](#) | Chicago, IL

EDUCATION

University of Illinois at Chicago - Master of Science, Computer Science **Aug 2025 - May 2027**
Courses: Computer Algorithms & Data Structures, Database Management Systems, Applied AI & Machine Learning

Anna University - Bachelors in Computer Science & Data Science (Hons) **June 2021 - April 2025**
Courses: Object Oriented Programming, Computer Architecture, Operating System, Cryptography and Network Security

TECHNICAL SKILLS

Programming Languages: Java, Python, C, C++, Swift, Go, Kotlin, MySQL, Scala, Linux, Shell, CI/CD
Web Technologies: HTML, CSS, JavaScript, ReactJS, AngularJS, VueJS, NodeJS, .NET, Spring, Django, Flask, Figma
Tools and Technologies: AWS (EC2, Lambda, SES), Azure, GCP, Hadoop, Kafka, Docker, MongoDB, Git, AI tools
AI/ML & Python Tools: GenAI, CNN, RNN, LLM, TensorFlow, Keras, Scikit-learn, Numpy, PyTorch, Open-CV, NLTK

WORK EXPERIENCES

Graduate Assistant **UIC Technology Solutions** **Sep 2025 - Present**

- Maintaining **RESTful APIs** in **JavaScript** and **React**, supporting **3,000+** daily users on UIC web systems.
- Implementing **Jest & Supertest** cases to achieve full test coverage across core **REST API** endpoints.
- Managing **version control** using **Git** and maintaining a **MySQL** database by optimising complex queries.

Software Developer Intern **Idexcel Pvt Ltd** **May 2024 - Aug 2024**

- Designed a **real-time distributed** notification system that learns user behavior patterns and adapts context variation
- Scaled real-time log analysis pipelines using **Docker containers** deployed on **Kubernetes clusters**.
- Built a **Kafka-Spark** telemetry pipeline for **parallel log analysis** on 10M+ records and storing results in **Hadoop HDFS**
- Developed **AWS Lambda** functions for anomaly detection, enabling sub-seconds to reduce **query latency by ~70%**
- Notified via personalized alerts using **Amazon SES and APNs** and boosted engagement by **35%**

Software Engineering Intern **Vision Isoftech Pvt Ltd** **May 2023 - Aug 2023**

- Developed a **Python**-based recommendation engine with a **Kotlin** frontend, delivering 150+ suggestions/min and boosting product discovery by 83%.
- Built an image similarity algorithm using **TensorFlow** and **GPU**-accelerated embeddings for product matching
- Designed asynchronous state management in **Kotlin**, enhancing **UI** responsiveness and repeat purchases by **32%**

TECHNICAL PROJECTS

Doc-to-Audio iOS App [Swift, Xcode, LangChain, UIKit, iCloud/Box API] **Dec 2024 - Feb 2025**

- Developed an **iOS** app in **Swift** to convert documents into audio using **OpenAI's LLM API** through **LangChain**
- Leveraged **AVFoundation** and **BGProcessingTask** for offline audio synthesis and background multitasking
- Incorporated native **iOS** features like haptic feedback, dark mode, and VoiceOver accessibility

E2E E-commerce Website [React, TypeScript, NodeJS, Context API, RestAPI, MongoDB] **Aug 2024 - Oct 2024**

- Built an **E-commerce site** with **React**, **NodeJS**, **TypeScript**, and **MongoDB** for seamless product discovery and checkout.
- Delivered high-performance **APIs** to automate orders, improving operational efficiency by **73%** for high-volume SMBs.
- Integrated a secure payment gateway via **API-authenticated REST** endpoints, and **OAuth** authentication for user login

Edge-Assisted Suspicious Activity Detection [Java, Vue.js, PyTorch, Django, CNN] **Feb 2023 - April 2023**

- Developed a **real-time** surveillance web app to stream data through a **DAG** pipeline of **3D CNNs** for suspicious activity recognition and **OpenPose** for human pose detection
- Processed video frames using **OpenCV** and optimized multi-camera person tracking with **DeepSORT** in **PyTorch**
- Built a monitoring **dashboard** using **Vue.js**, deployed the application using **Django REST framework**,

AWARDS, CERTIFICATIONS, AND PUBLICATIONS

- Published **research papers** in EXIF Multimedia Metadata [\[Link\]](#), COVID-19 detection by CT-Scan Images [\[Link\]](#)
- Oracle Certified Associate 2023, Gold League at Google Cloud, Winner of Internal Smart Indian Hackathon 2024