

# Karthik Thyloor Mahesh

Athlone, Ireland

| +353 894175038

| [karthiktm2804@gmail.com](mailto:karthiktm2804@gmail.com)

| [Portfolio](#)

| [LinkedIn](#)

## PROFILE

Cloud Computing Graduate with hands-on experience in AWS services, Linux systems, and troubleshooting distributed applications. Experienced in monitoring logs, debugging REST APIs, and supporting containerized environments. Skilled in analyzing failures, documenting solutions, and collaborating in Agile teams to improve reliability and stability of cloud workloads.

## CERTIFICATIONS

1. AWS Certified Cloud Practitioner – 2025 - [Verification Link](#)

## TECHNOLOGY SKILLS

- **Cloud Platforms:** AWS (IAM, EC2, S3, Lambda, DynamoDB, CloudWatch – practical usage)
- **Frameworks & Libraries:** Spring Boot, Angular, Express, Node.js, React
- **Systems & Networking:** Linux (Ubuntu, Amazon Linux), Networking fundamentals, CLI troubleshooting
- **Monitoring & Support:** Log analysis, API debugging, Postman, incident documentation
- **DevOps & Tools:** Git, Docker, Kubernetes, CI/CD fundamentals
- **Programming:** Python, Java (automation and backend usage)
- **Databases:** MySQL, MongoDB, DynamoDB

## WORK EXPERIENCE

### June 2023 - September 2023 | Rooman Technologies

### Backend Development Intern

- Investigated backend API failures using logs and request tracing to identify root causes
- Resolved database and integration issues in Linux environments improving service stability
- Reproduced defects and documented resolution steps for faster future troubleshooting
- Collaborated with senior engineers during debugging sessions and sprint reviews
- reporting module seamlessly integrated with existing data workflows for reliable, high-quality outputs.

### August 2022 - September 2022 | KnowX Innovations

### Full Stack Web Development Intern

- Validated REST endpoints and performed unit testing for Student Management System
- Logged defects and assisted in fixing functional issues during Agile development cycles
- Participated in daily stand-ups and communicated technical findings clearly to team members

## PROJECTS

### 1.Serverless Architectures for Modular AI Inference Pipelines | Master's Research Project | 2025

- Monitored AWS Lambda executions and analyzed logs to detect runtime failures
- Evaluated cold start behavior and performance bottlenecks in serverless workflows
- Produced structured troubleshooting documentation for reproducible debugging

### 2.Cloud-Based Collaborative Video Editing Platform | Distributed Systems Project | 2025

- Designed storage workflow using S3 and DynamoDB integration
- Assessed scalability and failure handling scenarios in distributed architecture
- Proposed monitoring and alerting strategy to improve service reliability

## EDUCATION

### 2024-2025 | Technological University of the Shannon, Athlone, Ireland

Master of Science in Software Design with Cloud Native Computing

### 2020-2023 | Visvesvaraya Technological University, Belagavi, Karnataka, India

Bachelor of Engineering in Electronics and Communication Engineering



## PROJECTS

### **CineCast - Video Streaming App** - [link](#)

- Designed REST APIs using Java and Spring Boot for video upload, transcoding, and adaptive bitrate streaming (360p–1080p).
- Implemented byte-range streaming with HTTP Range headers to ensure efficient delivery of video chunks.
- Integrated HLS (HTTP Live Streaming) by generating master files and segment indexes for adaptive playback.
- Optimized video transcoding workflows to support multiple resolutions, ensuring smooth playback across devices.
- Deployed containerized microservices using Docker, demonstrating expertise in cloud-native application design.

### **EchoWave - A Chat App** - [link](#)

- Developed a responsive React frontend enabling user registration, login, and real-time chats with online status tracking.
- Built WebSocket-based real-time communication using the ws library, supporting multiple concurrent clients.
- Implemented JWT-based secure authentication for persistent user sessions and password hashing with bcrypt.js.
- Enabled file-sharing functionality in chat, managing server-side storage using Node.js and the fs module.

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## EDUCATION