

TRINADH MUSUNURI

trinadh.musunuri@gmail.com • www.linkedin.com/in/trinadh-musunuri/ • github.com/3nadh3 • www.trinadh.dev

EXPERIENCE

Central Michigan University — Research Assistant	Sep 2025 – Present
<ul style="list-style-type: none">Conduct research paper reviews, contribute to new ideas, and support paper writing and publication.Replaced an inefficient evolutionary algorithm with a gradient-based optimization method.Achieved 50× faster execution by reducing runtime from 30–60 minutes to under 2–3 minutes.Built and deployed optimized backend services and experimental pipelines on cloud infrastructure.Developed backend modules and RESTful APIs to support data processing and experimentation.	

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript, C, SQL
Web & Frameworks: HTML, CSS, React.js, Node.js, Express.js
Backend & APIs: RESTful APIs, JWT Authentication, API Security, Performance Optimization
Databases: MongoDB, MySQL, Relational Schema Design, Indexing, Query Optimization
Cloud & DevOps: AWS (EC2, S3, IAM, RDS, Lambda, Load Balancing), Google Cloud Platform, Docker, CI/CD Pipelines, Linux
System & Software Design: Scalable Architecture, Client–Server, Modular Backend Design, Microservices Basics
Tools: Git, GitHub, Postman, Docker, Linux, Performance Profilers, Debugging Tools

PROJECTS

SkillsSwap — Full Stack Skill Matching & Messaging Platform	2025
<ul style="list-style-type: none">Built a full-stack platform for skill matching and real-time messaging.Developed RESTful APIs and backend services using Node.js and Express.Implemented WebSocket-based real-time chat and MongoDB data models.Deployed backend services on cloud infrastructure with secure configuration.	
Transcripto (M-Sum-PAI) — Cloud-Based AI Summarization Platform	2025
<ul style="list-style-type: none">Built a cloud-based system to summarize text, PDFs, audio, and video content.Developed scalable backend services and RESTful APIs for file handling and processing workflows.Implemented asynchronous processing and background jobs for large inputs and concurrent users.Deployed services on AWS using EC2, S3, and IAM with secure access control.Integrated external AI APIs and built automated pipelines for transcription and summarization.	

CERTIFICATIONS

Generative AI Engineering — Google Cloud	Nov 2024
Vertex AI, prompt engineering, model deployment, scalable ML pipelines, cloud-based AI workflows	
AWS Cloud Technical Essentials — Amazon Web Services	Nov 2023
EC2, S3, IAM, RDS, cloud architecture, security fundamentals, high-availability design	

EDUCATION

Master of Science in Computer Science — Central Michigan University	May 2027
College of Science and Engineering	
Relevant coursework: Advanced Algorithms, Cloud Computing, Web Technologies, Machine Learning	