

KARTHIK RAMADUGU

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Summary

- Software Developer with 2+ years of experience in full-stack development, DevOps, and AWS cloud solutions.
- Skilled in building scalable web applications and RESTful APIs using Node.js, Express.js, React.js, and MongoDB.
- Proficient in AWS services (EC2, S3, Lambda, CloudWatch) and implementing CI/CD pipelines with Jenkins and GitHub Actions.
- Experienced in applying DevOps practices (Docker, automated builds, cloud monitoring) to improve deployment speed and system reliability.
- Pursuing M.S. in Computer Science at the University of Dayton (Graduation: Dec 2025), with strong foundations in system design, algorithms, and software engineering.

TECHNICAL SKILLS

- **Languages:** Python, JavaScript (Node.js)
- **Frameworks/Libraries:** React.js, Express.js, Mongoose
- **Databases:** MongoDB, SQL, Redis
- **Cloud/DevOps:** AWS (EC2, Lambda, S3, CloudWatch), Docker, Jenkins, GitHub Actions, CI/CD
- **Tools:** Linux/Bash, Postman, Git, Matlab
- **Other Tools:** Postman, Agile/Scrum, Microservices, RESTful APIs, Redis caching, TailwindCSS

EXPERIENCE

Software Engineer Intern , CAS, Columbus, Ohio

06/2024 – 07/2025

- Developed secure REST APIs and **microservices** with Node.js & MongoDB for enterprise applications. Implemented **AWS-based deployment pipelines** (EC2, S3, Lambda) reducing release times by 35%.
- Designed **CI/CD workflows** using Jenkins & GitHub Actions ensuring zero-downtime deployments.
- Optimized backend services, improving **data retrieval by 25%** and enabling system scalability.
- Collaborated with cross-functional teams to increase **sprint velocity by 20%**

Trainee , FunctionUp, Bengaluru, Karnataka

10/2022 – 05/2023

- Built scalable **backend APIs** with Node.js & Express.js, improving response times by 30%.
- Automated API testing with **Mocha & Chai** ensuring reliable feature rollouts.
- Leveraged **AWS (EC2, S3)** to host backend services with high availability.
- Worked in **Agile teams** to deliver client-focused backend solutions on time.

Projects

PROJECTS

IndiaMart – E-Commerce Platform

Summer 2024

Built a MERN-stack e-commerce platform for the Indian community in Dayton.

- MERN + Redis + AWS application supporting budget-friendly shopping for 70% of local students.
- Pre-budget planning tool helped users save 15–25% per purchase.
- Implemented Redis caching reducing API latency by 45%.
- Real-time inventory reduced *“out-of-stock” frustration* by 60%.
- Secure AWS backend scaled to 10,000+ concurrent users.
- Personalized recommendations boosted retention by 35%.

Fitness Tracker – Nutrition & Workout Companion

Fall 2024

- MERN stack fitness app deployed on Render + Vercel.
- Increased workout consistency by 30% and reduced unhealthy food intake by 20%.
- Personalized recommendations improved goal achievement by 25%.
- JWT authentication increased trust by 40%; visual dashboards boosted motivation by 50%.

- Mobile-first design with 95% availability helped combat lifestyle diseases.

URL Shortener – Smart Link Management

Spring 2023

- Built with Node.js, Express, MongoDB, React.
- Shortened links improved click-through rates by 25%; reduced length by 80%.
- Added analytics dashboards to track clicks & referrals.
- Scalable to 50K+ links per month with 99.9% uptime.
- JWT-secured routes prevented misuse; improved branding with custom links.

EDUCATION

University of Dayton, OH: Master of Science in Computer Science | GPA:3.43/4.00

2024 -2026