



KEERTHANA MURTHY

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EDUCATION

Indiana University Indianapolis, M.S in Computer Science, USA (GPA - 3.81/4.0)

May 2026

Courses: Algorithms Design & Analysis, Cloud Computing, Object Oriented Software, Advanced DBMS, Web Development

TECHNICAL SKILLS

Programming Languages: C++, Python, Java, JavaScript, Go, SQL, Git, Typescript. **Frontend:** React, HTML, CSS, Bootstrap
Backend: FastAPI, Node.js, Spring Boot, Django **Databases:** MySQL, MongoDB **Cloud & Tools:** AWS (S3, EC2), Docker, Jenkins, Git
Other: REST APIs, CI/CD, Agile (Scrum) **Platforms:** Android, iOS, Web. **Operating Systems:** Windows, Mac

WORK EXPERIENCE

Software Engineer(Full-Stack): Dormakaba Americas, USA

Feb 2026 - Present

- Built an end-to-end content migration pipeline using **Python**, automating Zendesk → Contentful workflows, reducing manual effort by **40%**, processing 1000+ articles, and lowering operational costs by **~35%**
- Integrated Zendesk, Contentful, and Cloudinary **REST APIs** with pagination, retries, and rate limits, reducing failures by **~30%**
- Developed an **LLM-based** system (Azure) to convert HTML into JSON, improving consistency & reducing manual effort by **50%**
- Built an internal migration monitoring dashboard using **React**, **TypeScript**, and **Tailwind CSS**, giving stakeholders real-time visibility into pipeline status and reducing manual status check-ins

Full-Stack Developer: The Polis Center at IU Indianapolis, USA

Sep 2025 - Present

- Architected and implemented **SSO** authentication using Go's **OIDC** library (go-oidc), replacing custom session-based auth with standards-compliant **OpenID** Connect flows, including token validation, **JWKS** key rotation, and **PKCE**, eliminating auth-related vulnerabilities and cutting login latency by **30%**
- Built a custom leveled logging package in **Go** with structured data support, separate stdout/stderr routing, and a package-level singleton replacing scattered fmt/log calls across **middleware**, **auth services**, **DB**, and **mailer** with consistent, timestamped logs
- Initialized **GORM** database handle with sync.Once to prevent redundant connection pool creation on repeated calls, and added a pre-initialization guard to surface misuse clearly at startup
- Refactored full-stack features using **React**, **TypeScript**, and **Gin (Go)** to improve API structure and accelerate delivery of user-facing functionality, strengthening type safety and reducing runtime errors
- Led **Bootstrap 3** → **5** migration, rebuilding key components with **Tailwind CSS** and **Mantine** for a modernized, accessible (WCAG) design system, reducing page load time by **~25%**
- Documented APIs, **Kubernetes** infrastructure, and **CI/CD** pipelines, reducing onboarding time & improving cross-team efficiency

Software Engineer Intern: Dormakaba Americas, USA

May 2025 - Aug 2025, Dec 2025 - Feb 2026

- Published **700+ knowledge base records** across 30+ regions, improving consistency and reducing turnaround time by **~25%**
- Built **SaaS-based** web publishing features using **JavaScript** & **REST APIs**, enabling dynamic content updates
- Developed a **RAG-based** semantic search system using **Ollama** embeddings, improving search relevance and reducing lookup time
- Designed a **FastAPI + React (TypeScript/Mantine)** app for real-time knowledge retrieval, improving UX and speed

Software Development Researcher: Indiana University, USA

Jun 2025 - Apr 2026

- Built interactive **3D visualization** system (**React**, **Plotly.js**) for Alzheimer's risk modeling, enabling real-time analysis of **50+** feature combinations and improving model interpretability for researchers
- Developed a **FastAPI backend** to compute prediction data, reducing latency and enabling smooth, real-time **UI** interactions
- Engineered an analytics platform using **Angular + D3.js** to visualize **20K+ patient records**, via dynamic visualizations filtering
- Optimized queries using **Django REST & GraphQL**, reducing data retrieval latency by **40%** & improving overall response

Software Engineer II: Deloitte USI, India

Sep 2020 - Jan 2024

- Developed automation frameworks using **JavaScript** & **Node.js** within a BDD architecture, supporting multiple production releases for **Eli Lilly** applications, reducing manual QA effort by **~70%**
- Improved data accuracy by **60%** and reduced execution time by **40%** through optimized reusable modules and efficient data handling; Introduced **TypeScript** into core systems, reducing errors by **20%**
- Built and validated **REST APIs** using **Spring Boot**, reducing user onboarding time by **70%** and improving system scalability
- Ensured data integrity across **AWS (S3, EC2)** and **MySQL pipelines**, supporting reliable production data processing

ACADEMIC PROJECTS

CUMMINS MULTI-AGENT FIELD SERVICE DIAGNOSTICS PLATFORM

Mar 2026

- Built full-stack **multi-agent** system (**React + FastAPI + PostgreSQL/pgvector**) automating triage, evidence collection, & delegation with RAG-powered intelligence. Developed production-ready tooling, including offline queue, bulk ops, advanced search, and 20+ APIs. Processed **500+** synthetic cases; projected 26% MTTR reduction and 13-point first-time-fix improvement