

# Phanidhar Akula

AI Systems Engineer | HPC Simulations | Generative AI | Full-Stack Developer

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## EXPERIENCE

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### Graduate Assistant

Miami University – Department of Computer Science & Software Engineering

Oxford, OH – Aug 2025 – Present

- Lead AI-based geospatial research on digital cities using OSC and build reproducible HPC benchmarks.
- Serve as GCSP Assistant: advise 10+ scholars, and support student research pathways.
- Manage operations: run social media (3K followers, 2K reach), coordinate annual meetings and events.

### President

Miami University – Graduate Students of Color Association (GSCA)

Oxford, OH – Aug 2025 – Present

- Lead a graduate organization of 100+ students, advancing diversity, equity, and inclusion across campus.
- Organize 5+ campus-wide events with 80+ attendees, strengthening GSCA's reputation and reach.
- Secure alumni and departmental partnerships, boosting visibility by 45% and expanding sponsorships.

## RESEARCH & PROJECTS

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### A Reproducible Cross-Simulator Benchmark – Thesis Research

- Design and implement a reproducible cross-simulator benchmark for urban commute simulations at scale.
- Deploy on Ohio Supercomputer Center (OSC) with parallelization (MPI + OpenMP).
- Scale simulations to 100k+ agents, reducing runtime by 40%, enabling fair cross-simulator comparisons.

### LumiAI: AI-Powered Educational Platform

MPV Live: [studywithlumi.com](https://studywithlumi.com) – Aug 2025 – Present

- Build an AI-powered learning assistant integrating LLM reasoning, TTS/STT, and a scalable AWS backend.
- Design full-stack application with authentication, chat persistence, and contextual tagging.
- Launch to 50+ beta users, demonstrating practical, real-world usability and technical feasibility.

## EDUCATION

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### Master of Science in Computer Science

Miami University | Oxford, OH – Aug 2024 – May 2026

GPA: 3.83 | Coursework: Generative AI, Machine Learning, Software Quality, Cryptography

### Bachelor of Technology in Computer Science

Malla Reddy University | Hyderabad, TG – Aug 2020 – May 2024

## TECHNICAL SKILLS

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Languages: Python, Java, JavaScript/TypeScript, SQL, Bash/Shell Scripting, HTML, CSS

AI & Data: Generative AI (LLMs, NLP, TTS/STT), Deep Learning, Machine Learning, TensorFlow, PyTorch, Scikit-learn

HPC & Research Tools: MPI, OpenMP, SLURM, OSC Supercomputing, Parallel Simulation Benchmarks, PostGIS

Cloud & DevOps: AWS, Google Cloud, Docker, Git, CI/CD, Postman

Design & Full-Stack: React.js, Next.js, Node.js, FastAPI, PostgreSQL, MongoDB, UI/UX Design, Figma, Tailwind CSS