

Phanidhar Akula

Full-Stack Software Engineer | React, TypeScript, Python

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Summary

Full-stack software engineer with experience building and shipping production web applications using React, TypeScript, and Python. Strong foundation in data structures and system design, with hands-on experience delivering user-facing features, backend services, and cloud deployments. Comfortable owning features from UI through backend services, collaborating with stakeholders, and iterating based on real user feedback.

Professional Experience

Graduate Assistant

Miami University – Department of Computer Science & Software Engineering

Oxford, OH – Aug 2024 – Present

- Designed and delivered full-stack web features used by students and faculty, translating academic workflows into intuitive UI and backend logic.
- Built and maintained React + TypeScript interfaces backed by Python services, focusing on reliability, performance, and clean API boundaries.
- Collaborated with faculty and researchers to prototype, test, and iterate on internal tools based on usability feedback.
- Improved frontend responsiveness and reduced redundant API calls by restructuring client-side state and data-fetching logic.

Software Engineering Intern

Pathfinders Overseas Educations (Startup Consultancy)

Hyderabad, TG – May 2025 – Aug 2025

- Contributed production features across frontend and backend in a fast-moving startup environment.
- Implemented RESTful APIs and frontend components supporting core product workflows, emphasizing correctness and maintainability.
- Debugged issues across services and improved existing code paths after reviewing legacy implementations.
- Worked closely with product and design stakeholders to refine UX details before release.

Freelance Software Engineer

Independent

- Designed and implemented a production payment gateway system handling request validation, transaction workflows, and database persistence.
- Built backend services using Python and MySQL and deployed cloud-hosted infrastructure on AWS.
- Balanced performance, security, and maintainability constraints while delivering under real client timelines.
- Provided ongoing maintenance and incremental improvements based on usage patterns.

Projects

LumiAI: AI-Powered Educational Platform

MPV Live: studywithlumi.com – Mar 2025 – Present

- Designed and built a full-stack web application using React, TypeScript, and Python.
- Implemented user authentication, API integrations, data persistence, and error handling in workflows.

- Integrated multiple external APIs to support conversational and educational features.
- Iterated on UX and performance based on real usage and beta user feedback.

Product Workflow Optimization Tool

- Built a full-stack internal web application to simplify multi-step user workflows.
- Developed frontend logic in React + TypeScript with backend services in Python.
- Improved task completion speed by refining interaction flows and reducing unnecessary steps.

Scalable Web Application

- Developed a modular web platform with reusable frontend components and backend services.
- Optimized API usage patterns to reduce redundant requests and improve perceived performance.
- Wrote unit-tested backend logic to support safe iteration and feature growth.

SimForge: Urban Simulation Research Platform

- Built a reproducible benchmarking framework for urban commute simulations.
- Designed scalable execution pipelines in Python, focusing on performance measurement and reproducibility.
- Focused on reproducibility, performance measurement, and structured experimentation.

Skills

Languages: Java, TypeScript, JavaScript, Python

Frontend: React, TypeScript, HTML, CSS

Backend: Python, REST APIs

Databases: MySQL, PostgreSQL

Cloud & Dev Tools: AWS, Git, Docker

Core CS: Data Structures, Algorithms, Object-Oriented Design

Engineering Practices: Debugging, Code Reviews, Testing, System Reliability

Education

Master of Science in Computer Science

Miami University | GPA: 3.85 | Oxford, OH – Aug 2024 – May 2026

Bachelor of Technology in Computer Science

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

Certifications

AWS Cloud Foundations (Coursera)

Software Engineering & Systems (Coursera, NPTEL)

Leadership

President

Miami University – Graduate Students of Color Association (GSCA)

Oxford, OH – Aug 2025 – Present

- Lead a graduate organization of 100+ students.
- Organize campus-wide events and coordinate with faculty, alumni, and student groups.