NIHAL SHETTY

Bloomington, IN | +1 (930) 333-4010 | nihalshetty2001@gmail.com | linkedin.com/in/nihaldshetty/ | github.com/nihalshetty-boop | nihalshetty.me

EDUCATION

Indiana University   August 2023 – May 2025
Master of Science - Computer Science; GPA – 3.84

NMIMS' Mukesh Patel School of Technology Management and Engineering   July 2019 – May 2023
Bachelor of Technology - Computer Science and Business Systems; GPA – 3.59

PROFESSIONAL EXPERIENCE

Senior Consultant   June 2025 – Present
Heartland Community Network   Bloomington, IN
- Partnered with small businesses and organizations across Indiana to identify operational challenges and deliver tailored software solutions through web and app development.
- Designed and implemented scalable backend systems with CI/CD pipelines, contributing to performance improvements and digital transformation across diverse client environments.
- Deployed scalable client applications on AWS using EC2, S3, and Route 53, improving reliability and reducing hosting costs by standardizing infrastructure across projects.

Full Stack Developer Intern   August 2024 – December 2024
Hyphenova   Los Angeles, CA
- Delivered 35+ responsive pages using React Native, Node.js, and custom component libraries, improving UX consistency and input validation as measured by a 25% reduction in form validation errors based on internal QA metrics.
- Achieved smoother UI transitions and enhanced performance on low-end devices by restructuring Redux state updates and minimizing re-renders in the React Native app.
- Integrated FastAPI with MongoDB to build secure backend endpoints for account and session management, enabling robust support for JWT-based authentication and persistent user sessions.
- Improved API reliability and integration efficiency by 35% by collaborating with 8+ engineers to build modular navigation flows using React Navigation and thoroughly documenting and testing all Express and FastAPI endpoints with Postman.

Full Stack Engineer Intern   May 2024 – August 2024
Y STEM & Chess Inc.   Boise, ID
- Assisted in migrating the company's main platform from Angular to React, restructuring components and implementing routing via React Router to improve maintainability and frontend performance.
- Delivered responsive API-integrated interfaces using React, Bootstrap, and Axios, ensuring usability and stability across 10+ user-facing pages as validated by successful Postman-based testing.
- Developed secure backend APIs for session data, chat logs, and user profiles using Express and MongoDB, contributing to faster data access and smoother user interactions across the platform.
- Contributed to early-stage development of a video conferencing module using Agora and Node.js, integrating real-time audio/video streams and custom UI components to support virtual learning scenarios.

FOSSEE Intern   March 2022 – October 2022
Indian Institute of Technology – Bombay   Mumbai, India
- Spearheaded a critical Moodle platform upgrade for the Spoken Tutorial initiative by analyzing over 2,000 relational database tables and optimizing 32 performance-critical ones, ensuring schema alignment and improved query efficiency.
- Reduced upgrade downtime by scripting automation tools in Python and SQL to trace undocumented changes across 4,000+ lines of legacy backend code, accelerating refactoring, data migration validation and integration testing.
- Ensured a successful migration to the latest stable Moodle version by identifying and resolving backend logic and data schema compatibility issues using a combination of PHP, SQL, and system-level debugging in Linux.

PROJECTS & PUBLICATIONS

CourseCraft Learning Management System
- Developed a full-stack Learning Management System using React, Express, Firebase, and Node.js, enabling instructors to create, manage and organize courses, assignments and student interactions. Optimized load times and database queries to improve overall performance, resulting in a 35% faster page load across key user flows.
- Deployed the application on Render with integrated authentication, real-time database sync and user role management, maintaining 99% uptime.

2048 Game
- Built a multi-screen 2048 puzzle game for iOS using Swift with responsive swipe gesture controls, animated score popups via SpriteKit and dynamic grid rendering using CoreGraphics.
- Implemented persistent high score tracking with CoreData, customizable settings and sound effects with AVFoundation, delivering a polished, replayable gameplay experience.

Conversational AI Based College Enquiry Chatbot
- Designed and developed a chat-bot using conversational AI, Python, SQL and Microsoft Azure Services to provide useful results in real-time to replace the university website's existing rule-based chat-bot. (https://doi.org/10.22214/ijraset.2023.51324)

SOFTWARE SKILLS

Programming Languages: Python, Java, C, C++, JavaScript, TypeScript, SQL, Kotlin, Swift, PHP, R, MATLAB
Web & App Development: React, Angular, Node.js, Express, Android Studio, Xcode, HTML, CSS, Flask, Django, Bootstrap, MERN & MEAN Stack, Streamlit, Redux, REST API, Spring Boot, Electron, Vite, GraphQL
Databases/Datastores: SQL, MongoDB, PostgreSQL, Firebase, RDBMS, MySQL, Redis
Cloud & DevOps: AWS, GCP, CI/CD, Docker, Kubernetes, K8s, GitHub Actions
Miscellaneous: Data Structures, Algorithms, Linux, Microsoft Azure, Agile, Git, Jira, Postman, VS Code, Version Control, Operating Systems, Computer Networks, TCP/IP