

# Nishant Naravarajula

Boston, MA | naravarajula.n@northeastern.edu | (857) 506-0669 | GitHub | LinkedIn

## SUMMARY

I like building things that work well under the hood—optimized queries, clean APIs, systems that don't break at 2 AM. Currently pursuing my MS at Northeastern while diving deeper into systems programming and software architecture.

## EDUCATION

### Northeastern University (Khoury College)

Boston, MA

*Master of Science in Computer Science, GPA: 3.0*

*Expected May 2027*

- Relevant Coursework: Database Management Systems, Data Structures and Algorithms, Computer Systems, Programming Design Paradigms, Mobile Application Development
- Focus Areas: Software engineering, system design, real-time processing, and hardware-software integration

### GITAM Deemed to be University

Hyderabad, India

*Bachelor of Technology in Computer Science*

*July 2024*

- Relevant Coursework: Database management Systems, Operating Systems, Software Engineering, Data Structures, Algorithm Design

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, C, JavaScript, C# (familiar), C++, SQL

**DevOps Tools and Frameworks:** Git/GitHub, Linux, Docker, Azure, GDB, CI/CD, , Flask, Node.js, React.js, REST API

**Software Engineering:** Agile methodologies, code reviews, system integration, debugging, technical documentation

**Databases:** MySQL, MongoDBs

**Software Engineering:** Agile/Scrum methodologies

## EXPERIENCE & HACKATHONS

### Software Developer Intern

Jun 2024 – Dec 2024

*Balina IT Solutions*

*Hyderabad, India*

- Developed and maintained backend services using Python and C++, implementing robust error handling and data validation
- Designed database schemas and optimized SQL queries for high-performance data retrieval in production systems
- Collaborated with cross-functional teams following Agile sprint methodology, participating in code reviews and stand-ups
- Created comprehensive technical documentation for software modules, APIs, and system integration workflows
- Implemented automated testing procedures to ensure code quality and system reliability across development cycles
- Utilized Git version control for collaborative development, managing feature branches and pull requests

### PPE Compliance Detection System

Oct 2025

*Computer Vision & AI-Enabled Monitoring Application*

- Built real-time monitoring system using Python, OpenCV, and machine learning for safety equipment detection
- Integrated camera hardware interface with software processing pipeline for continuous image acquisition and analysis
- Optimized data flow between camera input, ML model inference, and alert system for sub-100ms latency requirements
- Implemented comprehensive error handling for hardware failures, network disruptions, and edge cases
- Developed modular, well-documented codebase following industry best practices for maintainability and testing

## TECHNICAL PROJECTS

### Certificate Management System with Database Backend

June 2023

*Full-Stack Application with System Integration*

- Developed Python backend with Flask framework, implementing RESTful APIs for CRUD operations and complex queries
- Created role-based access control system ensuring data security and privacy for sensitive information
- Optimized database queries reducing average response time by 60% through indexing and query restructuring
- Implemented automated testing suite with unit tests and integration tests achieving 85% code coverage
- Collaborated using Git/GitHub for version control, code reviews, and continuous integration workflows

### Expense Tracker Web Application

Jan 2025

*Full-Stack Application with MySQL Backend*

- Designed and developed a full-stack expense tracking web application using Python Flask and MySQL
- Implemented relational database schema with normalized tables for users, expenses, categories, payment methods, and budgets
- Integrated Flask backend with MySQL database using parameterized queries to ensure data integrity and security
- Implemented user authentication and session management with hashed passwords
- Optimized SQL queries and indexing to improve dashboard load times and reporting performance
- Used Git for version control and followed structured development practices with modular, well-documented code

### Open-Source Contribution: CM Colors Library

Mar 2025

*Code Quality & Documentation Enhancement*

- Contributed to Python library by enhancing documentation, improving code quality, and implementing additional test cases
- Followed open-source collaboration workflows: forking, branching, pull requests, and code review processes on GitHub
- Implemented systematic testing protocols to improve library reliability and identify edge case behaviors