

VISHAQ JAYAKUMAR

📍 Boston, MA 📞 (+1) 857-7469964 ✉️ jayakumar.v@northeastern.edu 🌐 vishq680 in vishaqjayakumar

EDUCATION

Northeastern University, Boston

Jan 2023 - May 2025

Master of Science in Computer Science

GPA: 3.7

Coursework: Programming Design Paradigm, Algorithms, Web Development, Database Management

Sri Sivasubramaniya Nadar College of Engineering, Chennai

Aug 2018 - Apr 2022

B.Tech, Information Technology

GPA: 3.7

Coursework: Data Structures, Algorithm Analysis and Design, DevOps, Object Oriented Programming

SKILLS

Programming Languages:	C/C++, Python, JavaScript, Java, C#, TypeScript, SQL, Swift, MATLAB
OS and Database:	Windows, Linux, MacOS, MySQL, MongoDB, Postgres, SQLite, Firebase
Web Technologies:	HTML, CSS, React, Angular, Django, Node, Bootstrap, REST API, Express, JQuery
Developer Tools:	Git, Pandas, JIRA, JUnit, AWS, CI/CD, Postman, Tensorflow, Pytorch, IOS SDK

WORK EXPERIENCE

Aura Intelligent Systems, Boston

Sept 2024 – Dec 2024

Machine Learning Intern

- Streamlined nuScenes dataset access using Python APIs to accelerate training workflows.
- Optimized lightweight object detection model for AMD Versal AI Engine using Python/C++, reducing processing latency by 25% and enabling real-time object detection.
- Converted raw TI AWR1243 radar data to point clouds using Python and MATLAB for perception and sensor fusion.
- Developed radar preprocessing filters and clustering algorithms to enhance ADAS object detection.
- Achieved a 30% reduction in false positives by integrating radar and vision-based clustering outputs, improving reliability of real-time object tracking for autonomous navigation.

LARSEN & TOUBRO (L&T), Chennai

Apr 2021 – May 2021

Software Engineering Intern

- Built a real-time dashboard with Angular and C#, enhancing UI responsiveness and backend integration.
- Implemented an efficient deployment pipeline using GitHub Actions, reducing deployment time by 60%.
- Analyzed application performance and optimized code design, boosting system efficiency by 10%.
- Increased system reliability by 25% by optimizing Angular component lifecycles and backend data handling.
- Implemented test automation and rollback strategies, boosting deployment reliability and reducing bugs by 35%.

PROJECTS

Kanbas - Learning Management System

GitHub

- Developed a robust Learning Management System for streamlined course delivery and enhanced student engagement.
- Utilized React for the front-end development and integrated MongoDB to establish a scalable database.
- Set up a streamlined CI/CD pipeline employing Jenkins, Docker, and Git for effective development and deployment.

Image Manipulation Tool

GitHub

- Designed over 15 image transformation techniques and created a user interface using Java Swing.
- Improved code-base optimization by 30% through the application of the MVC architecture design pattern.
- Emphasized test-driven development with JUnit, creating 60+ unit tests for extensive coverage.

Gym Buddies App

GitHub

- Constructed a mobile app for gym enthusiasts using SwiftUI, enabling connections based on shared workouts.
- Integrated Google Firebase for backend services, including Firestore and FirebaseAuth for database and authentication.
- Developed a real-time chat system with custom chat cells and optimized data fetching, reducing load times by 30%.

RESEARCH PUBLICATION

Covid-19 detection using chest X-rays: CNN as a classifier vs CNN as a feature extractor | [GitHub](#) | [Paper](#)