

Abhishek Sagar Sanda

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Education

College of Engineering, Northeastern University, Boston, MA

Expected: May 2025

Master of Science in Information Systems

GPA: 3.745

Related courses: Applications Engineering & Development, Web Design and User Experience Engineering, Data Structures and Algorithms

Jawaharlal Nehru Technological University Hyderabad, India

June 2022

Bachelor of Technology in Electronics and Communications

Technical Knowledge

Programming Languages: JavaScript, Java, C, C++, C#, Python

Frontend & Backend: MySQL, SQL, MongoDB, ReactJS, NodeJS, CSS, HTML, Data Structures & Algorithms, Bootstrap, jQuery

Web Technologies: MEAN stack, MERN stack, RESTful API, ASP.NET, MVC, Angular, IoT

Deep Learning: YOLOv8, PyTorch, TensorFlow, OpenCV, Ultralytics

IoT Devices: Raspberry Pi, Arduino, AI Kit, Pi camera, various sensors

Projects

Weapon Detection System | Python, OpenCV, Heroku, YOLOv4

March 2024 – May 2024

- Developed Python-based weapon detection system leveraging OpenCV, YOLOv4, and Django, enabling real-time identification of firearms with 92% accuracy, enhancing public safety measures.
- Integrated Amazon S3 and Heroku for seamless deployment, facilitating secure storage of 3000+ weapon images and enabling scalable hosting, ensuring system reliability and performance.

Roli.AI CLI Dynamic Chatbot | Roli.ai, JavaScript, GPT, Node.js, AI, ML

March 2024 – April 2024

- Designed and implemented a dynamic CLI-based chatbot that provided personalized responses to users based on their selected topic and preferences, improving user engagement and satisfaction by 35% compared to a static chatbot.
- Designed a seamless integration between the dynamic chatbot and the customer care chatbot that provided personalized assistance to users facing issues with the dynamic chatbot, enabling a smooth transition for users, and improving the overall problem-resolution rate by 32%.

Cyber Cuisine Ordering Solution | REST API, Nodes, MongoDB, Next, React, HTML, CSS, SCS

October 2023 – December 2023

- Integrated secure payment gateway using Google Pay API, facilitating hassle-free transactions, and collaborated with a team of developers, designers, and product managers to deliver project milestones on time, contributing to a 15% reduction in development cycle time.
- Implemented robust delivery system by integrating Google Maps API, Open Weather Map API, and Twilio API, enabling real-time tracking, optimized routing, and SMS notifications, designed to reduce average delivery times by 20% and enhance customer experience.

San Francisco Crime Analysis Credit Card Fraud Detection | ML, Data Science, Git

September 2021 – October 2021

- Developed a hybrid machine learning model combining logistic regression and random forest algorithms, resulting in a 27% improvement in credit card fraud detection accuracy compared to industry-standard approaches.
- Conducted a comparative analysis of various supervised and unsupervised machine learning techniques for credit card fraud detection, leading to the selection of an optimal model that increased the true positive rate by 32% while maintaining a low false positive rate.

Work Experience

Research Software Engineer Intern, **Sky Strike**, Shrewsbury, Massachusetts

September 2024 – present

- Developed and implemented advanced object detection models (YOLOv8) for real-time weapon detection in CCTV camera and Pi camera using Raspberry Pi5, achieving 70-95% accuracy. Utilized PyTorch, OpenCV, TensorFlow, and Ultralytics frameworks.
- Implemented advanced techniques like pseudo-labeling and DQN reinforcement learning to enhance accuracy and decision-making capabilities.
- Researched and implemented pose estimation techniques using BlazePose with MediaPipe and YOLOv8-Pose, achieving 60-90% accuracy.
- Designed and developed the official company website using ReactJS, ensuring a seamless user experience and effective communication of the company's mission and products.

.NET Full Stack Developer, **HCL Technologies Limited**, Chennai, India

August 2022 – August 2023

- Delivered .NET-based [HCL Engage](#) application with 95% on-time completion and 90% under-budget rate.
- Boosted user engagement by 30% and reduced support requests by 10% through Agile development and iterative testing.
- Fortified application security posture by addressing SAST/DAST issues, reducing vulnerabilities by 20%.

Product Intern, **Blackbuck Engineers**, Hyderabad, India

August 2021 – October 2021

- Orchestrated 8 pioneering initiatives spanning AI/ML, IoT, and data analytics with a 24-member cross-functional team, garnering 4.8/5.0 evaluations through exemplary leadership and communication acumen.
- Spearheaded cutting-edge projects driving 25% productivity gains via innovative solutions and adept team leadership in emerging technologies.

Full Stack Developer Intern, **Biztime IT Solutions Pvt. Ltd.**, Hyderabad, India

April 2020 – October 2020

- Architected COVID-19 enterprise app on MEAN stack with Auth0, driving 30% user engagement surge through real-time insights.
- Delivered full-stack pandemic data tracking solution leveraging 8 technologies, enhancing organizational responsiveness to public health challenges.

Activities and Achievements

Won the Generative AI Hackathon by Roli – for presenting and demonstrating my Roli.AI CLI Dynamic Chatbot project.

Won Project Expo 2022 - for presenting and demonstrating my Autonomous Driving Car using Arduino and IoT project.

AIESEC In India - Drove revenue, performance, client management, event success, and participant satisfaction through strategic leadership.

Worked on Projects- Dog Classification and IoT-based Intelligent Traffic Light Management, IoT based home automation, Movie

Recommendation System, Support Vector Machines, Text Classification, Diabetes Prediction.