

EDUCATION

North Carolina State University
Master's in Computer Science
Dwarkadas J. Sanghvi College of Engineering, Mumbai University
Bachelor of Technology in Computer Engineering with Honors in Intelligent Computing
Coursework – Data Structures, Algorithms, Object Oriented Programming, Operating Systems, Database Management System, Software Engineering, Machine Learning, Artificial Intelligence, Computer Networks, Big Data Infrastructure, Processor Organization & Architecture.

(Raleigh, NC) Aug 2024 – Present

(Mumbai, India) Dec 2020 – May 2024
CGPA - 9.69/10

SKILLS

- **Programming Languages:** Python, Java, C, C++, JavaScript, TypeScript, SQL.
- **Databases:** MySQL, MongoDB, SQLite, PostgreSQL.
- **Frameworks / Tools:** React, React Native, Django, Django Rest Framework, Redux, Flask, Git, GitHub, Postman, HTML5, CSS, Bootstrap.
- **Platforms:** Windows, Linux, Firebase, Amazon Web Services (AWS), Google Cloud, Microsoft Office.
- **Libraries:** Scikit-learn, OpenCV, Matplotlib, NumPy, Pandas, TensorFlow, Keras.

WORK EXPERIENCE

Ascorb Technologies Pvt. Ltd - Edmingle | *Software Engineer Intern*
● Developed a student-faculty portal, improving assessment tracking among **1,500,000 users**, reducing administrative workload by **30%**.
● Customized and added new functionalities to Zoom Desktop Application using Meeting Electron SDK, streamlining meeting workflows.
● Conducted ReactJS-based CRUD operations, improving filter functionality and reducing search time of **450+ products**.

(Remote) Jun 2023 - Sep 2023

Skilligence Edtech Private Limited | *Frontend Web Developer Intern*
● Created UI designs and wireframes on Figma, built the frontend of a Medical Diagnosis website, enhancing **user retention rate** by **45%**.
● Debugged and fixed programming errors, by testing and code reviews, enhancing execution and system performance by **30%**.

(Remote) Apr 2023 - Jun 2023

Suvidha Foundation (NGO) | *Web Development Intern*
● Introduced responsive UI and **6** personalised dashboards on company website and hosted on Netlify, driving higher user engagement.
● Led a fundraising campaign, accumulating donations worth **Rs.4000+** through efficient communication, increasing funding by **10%**.

(Remote) Dec 2022 - Jan 2023

ACADEMIC PROJECTS

Food Surplus Management System | *React Native, Django, Django Rest framework, SQLite, scikit-learn* [\(LINK\)](#)
● Developed a full stack app with **2 recommendation engines** featuring user authentication, payment gateway, search and filter items
● Tested and validated API endpoints on Postman and integrated frontend with backend using Axios, reducing **API latency** by **35%**.
● Implemented Location-based recommendation system using K-means clustering and Collaborative Filtering model using Singular Value Decomposition, achieving **98% personalization score**, subsequently hosting them on backend server.

Fruit Quality Detection App - PikFresh | *Firebase, Flask, React Native, OpenCV, TensorFlow, Keras* [\(LINK\)](#)
● Programmed the frontend and backend of a mobile app for real-time fruit quality assessment.
● Deployed and integrated a ResNet50 model to the app using Flask, devised using transfer learning, achieving **78% validation accuracy**.
● Utilized Expo Camera for **360°** fruit scan and designed a dynamic questionnaire, generating a report with **40 seconds** processing time.
● Improved detection accuracy by **17%** through vendor image inclusion, questionnaire alignment and hyper-parameter tuning.

Textile Anomaly Detection System | *Scikit-learn, OpenCV, TensorFlow, Keras* [\(LINK\)](#)
● Trained **5 ML models** using Resnet50 and VGG16 quantifiers for binary classification on images, obtaining highest **82% accuracy**.
● Built a CNN architecture from scratch to perform multiclass classification, **optimization** resulted in improved accuracy for some classes.
● Engineered Generative Artificial Intelligence by utilizing autoencoder network for image reconstruction and Kernel Density Estimation for prediction, **minimizing reconstruction error**.
● Constructed a pixelized custom dataset containing **2280 images** using macro lens, ensuring validity of models by testing on real data.

PUBLICATIONS

- Fabric Quality Assurance System: Defect Detection and Image Reconstruction using Gen AI [\(IJISAE Journal\)](#)
- A Systematic Review of Textile Anomaly Detection Systems [\(IEEE\)](#)
- Pneumonia Detection using Deep Neural Networks based on Chest Xray Images [\(Springer\)](#)
- PikFresh - Fruit Quality Detection using ResNet50 [\(IEEE\)](#)
- Recommendation System for Surplus Food Management using Location-based and Collaborative Filtering Approach [\(IEEE\)](#)

ACHIEVEMENTS AND CERTIFICATIONS

- **e-Designs and e-GI Application Development Challenge**–Developed Web and App Application for Intellectual Property Office of India.
- **Co-Head Publicity** at DJSCE ACM – managed team with **65+ members**, organized and managed events; Participated in **3 hackathons**.