

SUMAN MANDAVA

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EDUCATION

UNIVERSITY AT BUFFALO, THE STATE UNIVERSITY OF NEW YORK

Master of Science, Computer Science

Jan. 2026

ST.JOSEPH'S INSTITUTE OF TECHNOLOGY, Chennai, India

Bachelor of Engineering, Computer Science and Engineering, Graduated First Class with Distinction

Jun. 2024

- Relevant Courses: Data Structures, Algorithms, Database Systems, Operating Systems, Distributed and parallel Computing, computing architecture, Cryptography, Information Retrieval.

EXPERIENCE

Centum T&S

Bengaluru, India

Software Development Engineer Intern

Apr. 2024-jun. 2024

- Developed Human Machine Interface (HMI) applications for metro systems at BMRCL and DMRC using protobuf, zeroMQ, and websockets, with handlebars.js for frontend and node.js for backend, improving application responsiveness and user interaction by 30%.
- Designed and implemented user interfaces, including a fault information screen and settings page, enhancing driver control over console brightness, internal and external speakers, and cabin speakers.
- Collaborated with French clients to gather and translate business requirements into technical and functional design documents, ensuring alignment with client expectations.

HCLTech

Chennai, India

Full Stack Developer Intern

Jan. 2024-Mar. 2024

- Developed an Online Video Platform (OVP) leveraging React.js for the frontend, Node.js for the backend, and MongoDB as the database, resulting in a 25% improvement in system performance.
- Implemented Material-UI for visually attractive components and created distinct admin and client pages, increasing user engagement by 20% and administrative efficiency by 30%.
- Developed core functionalities including video streaming, JWT authentication, and user registration analysis, reducing authentication time by 15%.
- Developed REST APIs for robust and secure data communication between frontend and backend layers.
- Designed, developed, and unit tested the web application, ensuring high quality and reliability with a 20% decrease in bug occurrences.

L&T Technology Services

Chennai, India

Reactjs Developer Intern

May. 2023-Jun. 2023

- Designed and implemented a Resume Shortlisting Application using React.js, improving efficiency in managing and evaluating job applicants resumes by 30%.

ACADEMIC PROJECT EXPERIENCE

Know Your Customer Verification using Blockchain and CPABE Algorithm 

- Developed e-KYC TrustBlock, a blockchain-based system with CP-ABE encryption for secure KYC documents, achieving 98% accuracy and reducing verification time and redundancy (ICIMA-2023, IEEE DOI - [View here](#)).

Full Stack Online Video Platform 

- Developed a full-stack online video platform with JWT authentication, React Hooks, REST API, Firebase, MongoDB, an admin dashboard, an analytics module, and a Google Dialogflow chatbot.

Road Lane Line Detection using Machine learning 

- Developed a road lane line detection system using edge detection, Hough transform, image segmentation for accurate real-time lane identification, achieving 93.8% accuracy and processing at 0.18 s/frame. (IJFMR-2023) (Paper ID 6684-[View here](#)).

Object detection and identification using Machine learning 

- Real-time ML scans, identifies, and analyzes objects in digital and physical environments using OpenCV.

Resume Screening Application 

- Efficiently filters resumes based on key conditions which help in optimizing the recruitment process (IJNRD2308305-[View here](#)).

SKILLS

Programming Languages: Java, C++, Python (NumPy, Matplotlib, OpenCV), HTML, CSS, JavaScript.

Frameworks: ReactJS, NodeJS, ExpressJS, Handlebars, Bootstrap, MaterialUI, ContextApi, JSON Web Token, Remix, AJAX.

Databases: MySQL, MongoDB.

DevOps/Cloud: Git, GCP, Firebase, Docker.

Tools And Technologies: REST APIs, Postman, Websockets, OAuth, ganache, Nmap, Wireshark, Tableau, Google Dialogflow.