

Deepanshu Chalia

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Education

Southern Methodist University
Master of Science in Computer Engineering

Graduation date: 2022-2024

Punjab Engineering College
Bachelor of Technology in Electrical Engineering

Graduation date: 2017-2021

Work Experience

The Keelworks Foundation Oak Harbor, WA
Software Developer Volunteer July 2024 - Present

- Deploying a comprehensive training management application using React, Node.js, Express, and MongoDB to track course completion and streamline training processes for Keelworks.
- Forging robust connections between front-end and back-end systems to optimize data flow, ensuring a seamless user experience.
- Designing user interfaces with Figma and building reusable components with Shadcn, focusing on intuitive layouts and user-centric design principles to enhance engagement.

Southern Methodist University Dallas, TX
Graduate Research Assistant Aug 2023 - Dec 2023

- Designed and developed visualization dashboards using **React** and **Node.js** to demonstrate applications of **LLMs** like **LLaMA** and **OpenAI**, showcasing their potential in predictive modelling.
- Utilizing **LLMs** to clean and preprocess data, significantly improving the accuracy and reliability of analysis results.
- Implemented **Material UI** to design an intuitive and responsive interface, ensuring consistency and ease of use across the application.
- Delivered an efficient, user-friendly system that improved data clarity, model performance, and user engagement across multiple tasks.

J.S. Auto Private Limited New Delhi, India
Junior Developer June 2020 - Aug 2022

- Engineered a streamlined development environment using Node.js for backend, Express for APIs, and Vercel for deployment, optimizing project workflows.
- Developed and maintained 15+ web applications with React and Node.js, cutting latency by 30% and boosting user engagement by 25%.
- Automated key data processing tasks with Python, reducing manual effort by 30% and saving 10 hours send-weekly.

Projects

SaaS Platform [Link](#)

- Developed a SaaS platform using Next.js, Clerk, and Firebase.
- Integrated Stripe's API to enable seamless subscription management and payment processing.
- Created an AI-powered learning tool that adapts to user preferences and learning styles.

3D Object Detection [Link](#)

- Deployed projective image processing for precise dimensioning of a box moving on a conveyor belt.
- Corrected image distortions with camera parameters and distinguished surfaces using histogram and peak detection achieving a 15% improvement in object detection precision.

Sports League Database [Link](#)

- Engineered a web app for sports league management, supporting 500+ scheduled games and real-time updates.
- Incorporated Python and Django enhancing operational efficiency by 30%.

Skills

Programming Languages: Python, JavaScript, Java, SQL, C/C++, TypeScript
Frontend & Backend Frameworks: HTML/CSS, React, Next.js, Node.js, Flask, Express, Django
APIs & Libraries: Axios, RestAPI, OpenAI, OpenCV, Postman, Clerk, Stripe, MaterialUI, Shadcn
DevOps & Cloud Infrastructure: AWS, Kubernetes, Docker, Azure, LangChain, CI/CD
Databases & Data Management: MongoDB, Firebase, MySQL, PostgreSQL, Talend Version Control &
Development Workflow: Gitlab, VS Code, Fly.IO, Vercel