Deepanshu Chalia

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Education

Southern Methodist University   **Graduation date**: 2022-2024
Master of Science in Computer Engineering

Punjab Engineering College   **Graduation date**: 2017-2021
Bachelor of Technology in Electrical Engineering

Work Experience

The Keelworks Foundation   Dallas, TX
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   Dec 2022 - 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.
- Leveraged LLMs, ML techniques, and NLP practices to clean and preprocess data using libraries such as PyTorch and Hugging Face, enhancing the accuracy and reliability of analysis results.
- Implemented Material UI, utilizing CSSBaseline and React hooks like useContext to design an intuitive and responsive interface, ensuring consistency and seamless user experience across the application.

J.S. Auto Private Limited   New Delhi, India
Software Engineer   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: HTML5/CSS3, React, Next.js, CSSBaseline, Node.js, Flask, Express
ML/NLP Frameworks: PyTorch, BERT, Hugging Face
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