

# Deepanshu Chalia

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## EDUCATION

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### Southern Methodist University

Dallas, TX

*Master of Science in Computer Engineering*

Aug. 2022 – May 2024

*Relevant Courses: Operating Sys., Machine Learning, Database Management, Computer Vision, Algorithm Engineering*

*Awards: Khotnazad Graduate Scholarship*

### Punjab Engineering College

Punjab, India

*Bachelor of Technology in Electrical Engineering*

Aug. 2017 – June 2021

*Leadership: PECFEST President*

## TECHNICAL SKILLS

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**Software Development:** Python, C/C++, Java, SQL, JavaScript, TypeScript, HTML/CSS, Bootstrap, React, Node.JS, Next.JS Flask, Express, Axios, RestAPI, OpenCV, Postman, Django

**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, Linux

## EXPERIENCE

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### The Keelworks Foundation

Oak Harbor, WA

*Software Developer Volunteer*

July 2024 – Present

- Deployed a comprehensive training management application using React, Node.js, Express, and MongoDB to track course completion streamline training processes for Keelworks
- Forged robust connections between front-end and back-end systems to optimize data flow ensuring a superior user experience

### Headstarter Corporation

Oak Harbor, WA

*Software Engineer Fellowship*

July 2024 – Aug 2024

- Constructed 5+ AI-driven apps and APIs with NextJS, OpenAI, Pinecone, and StripeAPI, attaining a 98% success rate based on 1000 user evaluations
- Led a team of 4+ engineers, implementing MVC architecture to deliver projects from inception to deployment
- Enhanced technical expertise through coaching from Amazon, Bloomberg, and Capital One, mastering Agile, CI/CD, Git, and microservices

### Regional Transmission Organization (RTO), India

*Energy Systems Engineer*

Jan 2020 – April 2020

- Led the "Smart Transformer" project, integrating PLC and SCADA for 15% efficiency gain and 10% peak load reduction
- Minimized energy waste by 7% using embedded software, optimizing SCADA for enhanced efficiency

## PROJECTS

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### Inventory Management

- Created a inventory management application that allows users to keep track of grocery items by adding or removing items and updating their quantities.
- Utilized Next.js for the frontend framework, Material UI for the UI components, and Firebase as the backend

### 3D Object Detection

- 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

- 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%

## INTERESTS

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Hiking, Strength training, Bhangra(Punjabi Folk dance), Volleyball, Formula1, Cricket