

Koustubh Kulkarni

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B.E, Computer Science and Engineering
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🐙 GitHub Profile

🌐 LinkedIn Profile

EDUCATION

•Bachelor of Engineering in Computer Science

2022-present

KLE Technological University, Hubli

PROJECTS

•Eraser

A web-based collaborative whiteboard application for real-time sketching and note-taking.

- Implemented a feature-rich online whiteboard with real-time collaboration.
- Technology Used: Next.js, Tailwind CSS, Convex, React, TypeScript.

•StreamFlix

A Netflix-inspired movie streaming UI featuring user authentication, categorized movie listings, and personalized recommendations.

- Designed a dynamic and responsive movie browsing experience using real-time movie data from the TMDB API.
- Implemented Firebase Authentication and Firestore database for user login and personalized content.
- Technology Used: React, Firebase Auth, Firestore, TMDB API.

•Chat App

A real-time chat application enabling users to create and join chat rooms for group messaging.

- Built a real-time chat platform supporting multiple chat rooms with multiple users per room.
- Implemented live messaging using WebSocket communication powered by Socket.io.
- Technology Used: Node.js, Express.js, React, Socket.io.

• Facial Emotion Recognition

A Vision Transformer deep-learning model for facial emotion recognition and engagement analysis.

- Implemented Vision Transformer (ViT) for facial emotion recognition using a Kaggle dataset.
- Utilized k-means clustering for unsupervised engagement level analysis.
- Developed using Python, PyTorch/TensorFlow for deep learning model training.

EXPERIENCE

–LDR to HDR Image Reconstruction (Nvidia Project Intern)

A deep learning-based system to convert low dynamic range images to high dynamic range equivalents.

- * Trained a neural network model to enhance image details and brightness from single LDR inputs.
- * Focused on recovering highlight details and improving overall visual quality using HDR reconstruction techniques.
- * Technology Used: Python, PyTorch, OpenCV, NumPy.

–Camera Virtualization for AAOS (Nvidia Project Intern)

Implemented camera virtualization in AAOS using Linux and Android VMs.

- * Developed a virtual camera service for Android VM via Linux VM.
- * Utilized V4L2, UDP streaming, and FFmpeg for efficient video transmission.
- * Enabled seamless communication between Android Camera HAL and Linux VM.

TECHNICAL SKILLS AND INTERESTS

Languages: C/C++, Python, Javascript, HTML+CSS

Web Dev Tools: Nodejs, VScode, Git, Github, Linux, Postman, Convex, Tailwind(CSS).

Frameworks: ReactJs, Express, Nextjs

Cloud/Databases: MongoDB, FireBase, Relational Database(Postgre Sql)

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Object Oriented Programming, Database Management System, Software Engineering.

Areas of Interest: Web Design and Development, Artificial Intelligence, Cloud.

Soft Skills: Problem Solving, Self-learning, Presentation, Adaptability

CERTIFICATIONS

- **The Complete Full-Stack Web Development Bootcamp** Udemy, 2024
- **Machine Learning Algorithms in Python Course** Udemy, 2024
- **Javascript and Nodejs Courses** Scalar , 2025