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Place of birth: Islamabad, Pakistan **Nationality:** Pakistani

ABOUT ME

I am a dedicated and passionate Computer Science student with practical experience in full-stack web development. I have worked with technologies such as *HTML, TailwindCSS, JavaScript, React.js,Node.js, Express.js, and MongoDB*.
Currently I am aspiring to seek admission for a Master's degree.

EDUCATION AND TRAINING

[2021/08/15 – 2025/07/31]

Bachelor of Science in Computer Science

Institute of Space Technology (IST), Islamabad. Pakistan. (KICSIT Campus) https://www.ist.edu.pk/

City: Islamabad | **Country:** Pakistan | **Field(s) of study:** Computer Science and Information Technology | **Final grade:** CGPA: 3.14/4.00

WORK EXPERIENCE

Final Year Project (FYP)

Title: AI-Based Course Generator Full Stack Web Application

Project Overview

- Developed an AI-powered full-stack web application that automatically generates courses with content and videos. The platform helps instructors and students save time by creating structured educational content using Artificial Intelligence and video fetching from YouTube.

Objectives

- To build an intelligent system that can generate course outlines and lessons automatically.
- To fetch and suggestrelevant educational videos using YouTubeAPI.
- To design a secure and user-friendly dashboard for course creation and management.

Key Responsibilities

- Designed and developed the platform using React.js, Node.js, Express.js, and MongoDB.
- Integrated Gemini API to automatically generate course layout,and fully course.
- Used YouTube Data API to fetch related videos for each course topic.
- Implemented Clerk Authentication for secure user loginand role management.
- Built a responsive and dynamic UI using React.jsand Tailwind CSS.
- Connected frontendand backend for real-time contentfetching and storage.
- MongoDB was used for storing course details, chapters, and user information.

Technologies Used

- (1) React.js, (2) Node.js, (3) Express.js, (4) MongoDB, (5) Clerk, (6) Gemini API, (7) YouTube Data API, (8) Tailwind CSS

Achievements

- Successfully developeda working prototypedemonstrating AI-based course generation.
- Automated content creation and video integration process using APIs.

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Notable Semester Project

Title: Development of Virtual Mouse (Computer Vision Project)

Subject

- Computer Vision

Project Overview

- Developed a computer vision–based Virtual Mouse System that allows users to control the mouse pointer using hand gestures instead of a physical mouse. The project uses a webcam to detect hand movements and perform real-time cursor control and click operations.

Key Features

- Implemented hand tracking to detect finger positions using the webcam.
- Created functionality for cursor movement by tracking hand motion.
- Developed clicking feature using specific finger gestures (e.g. index and thumb together).
- Utilized OpenCV for image processing and MediaPipe for hand landmark detection.
- Achieved real-time performance with accurate gesturerecognition.

Technologies Used

- (1) Python, (2) OpenCV, (3) MediaPipe, (4) NumPy

Other Professional Projects

AI-Based Course Generator

- Working on a web application that leverages AI (using Gemini API) to analyze user goals and generate customized course structures, with authentication handled via Clerk.

EZiTech Website (First Page)

- Designed and developed the homepage using HTML, CSS, and JavaScript.
- (https://ezitech.org/)

Analog Clock

- Created a working analog clock interface with real- time updates using JavaScript.

SKILLS

Technical Skills

MERN Stack Development | MongoDB (Database) | C++ | HTML | CSS | Tailwind CSS

LANGUAGE SKILLS

Mother tongue(s): Urdu

Other language(s):

English

LISTENING B2 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user