

# Muhammad Zain

Islamabad, 47080 | +923030603432

of.mzain@gmail.com | <https://www.linkedin.com/in/muhammad-zain-a0313630b>

Highly motivated final-year Computer Science student at FAST NUCES with a strong background in software development, data structures, and algorithms. Proficient in Python, Java, and C++, with experience in both front-end and back-end development. Seeking to leverage technical expertise and academic knowledge to contribute to innovative software solutions in a dynamic environment.

## EDUCATION

### Bachelor of Science (B.S.) - Computer Science

Sep 2021 - Sep 2025 (Expected)

National University Of Computing and Emerging Sciences(FAST), Islamabad University

Projects:

Tetris (C++/SFML) , Resort Management System (Java/MySQL) ,Crystal Rush (C++) ,Taxi (C++/GLUT/OpenGL/OOP), Secure File Storage System with RBAC(AES-256, RSA-2048, HMAC-SHA256 ), PACMAN (Assembly language)

### Higher Secondary School Certificate - Pre-Engineering

2019 - 2021

HITEC School and College For Boys

## SKILLS

**Expert in:** JAVA, C++, HTML/CSS, MySQL, Python, Encrypting/Decrypting Algorithms

**Intermediate in:** JS, Linux, Networking , Assembly Language

## LICENSES & CERTIFICATIONS

Google AI Essentials  
Google - DNYDNYF8G9TJ 2024

Natural Language Processing (Google Cloud)  
Google/Coursera - UJWNKRJ4Q52U 2023

Google Ads for Beginners  
Coursera - LUFSWCUFUMZU 2023

Create Charts and Dashboard using Google Sheets  
Coursera - UN3QSSZL7SNX 2021

App Building with AppSheet (Google cloud) 2024

Get Started with Looker (Google cloud) 2024

Prompt Design in Vertex AI (Google cloud) 2024

Set Up an App Dev Environment (Google cloud) 2024

## HONORS & AWARDS

Runner up Graphic Designing  
World Space Week 2019

## VOLUNTEER

**Volunteer** Sep 2023 - Sep 2024  
Nascon Got Talent

**Volunteer** Sep 2020 - Sep 2021  
Fast Adventure Society

**Head Team Media** Aug 2024 - Mar 2025  
Fast Adventure Society

**Head Team Media** Aug 2024 - Mar 2025  
Takhleeq Society

## OTHER PROJECTS

### Theft-Detection:

Real-time Video Theft Detection using YOLOv8 and ByteTrack A computer vision system that detects and tracks people in surveillance videos, identifies suspicious activities like sudden movements or loitering, and annotates videos with bounding boxes and alerts. Built with deep learning for real-time performance.

### Computer Vision:

#### Body-parts-detector:

Real-time Body Part Detector Using MediaPipe A real-time application that detects when a user points to a specific body part using their index finger. Built with OpenCV and MediaPipe Pose and Hands modules, it identifies body landmarks and highlights the part being touched or pointed at.

#### Finger Gesture Calculator:

This project implements a finger-based gesture calculator using MediaPipe and OpenCV. It allows users to perform basic arithmetic operations (addition, subtraction, multiplication, and division) using only their hand gestures in front of a webcam.

#### FingerTracker:(Gesture-Based Drawing Using MediaPipe and OpenCV)

This Python program uses MediaPipe and OpenCV to implement a gesture-controlled drawing application that allows users to draw on a virtual canvas using their left index finger, while toggling drawing mode using a right-hand fist gesture.

#### VanishingShirt: (Real-Time Shirt Vanishing Effect Using MediaPipe and OpenCV)

This Python application uses MediaPipe and OpenCV to create a vanishing effect, where parts of a person (typically the shirt or body) become invisible and are replaced by a previously captured background. This illusion is toggled by a palm gesture or activated automatically after a short delay.

### GITHUB REPOS:

<https://github.com/zainkhalid10>