AMMAR ALI

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PROFILE SUMMARY

Results-oriented Computer Engineer expertise in **Computer Vision**. Skilled in model development, deployment, and real-time application integration. Seeking a challenging role to leverage technical expertise and drive excellence in AI-powered projects.

WORK EXPERIENCE

AI & Python Developer, Smart Tech Pvt Ltd   July 2024 - Sept 2024

- A Fined-Software House in Islamabad delivering solutions in the Market.
- Chatbot Development, Booking.com Scrapper, Sales Forecasting Model, Flask APIs & Auto-Image Downloading App in the 2-Month Internship Period.
- Collaborated with the team in successfully delivering projects on time.

Computer Vision Engineer, ITSOLERA   June 2024 - Sept 2024

- A Well established Company providing cutting Edge Solution using AI and Cyber Security.
- Object detection Models, OCR, FInetunning LLMs, GANs are the key highlighed projects.
- Collaborated with cross-functional teams, enhancing project success rates by 51%.

Computer Vision and IOT Engineer, The Spark Foundation   Apr 2024 - May 2024

- First foreign Remote Internship and mentorship under Graduate Rotational Program.
- Delivered projects including Mask Detection, OCR, and Fire Detection Alert system.

3D Printer Engineer, National Innovation Center NUTech   Aug 2023 - Sept 2023

- Reverse Engineer the Existing 3D printer and End up a Full Functional 3D Printer.
- Led and collaborate with the team in successfully delivering on time.

EDUCATION

Bachelors in Computer Engineering   Oct 2021 - Present
National University of Technology (NUTech), Islamabad

- CGPA: 3.61 │ Last Semester: 3.90

PROGRAMMING LANGUAGES

- Python
- MATLAB
- C++
- VERILOG

TOOLS

- Git/Github
- Docker / FAST API / Flask API
- OpenCV / CVZone
- Hugging Face / Pytorch / Tensorflow

HARDWARE

- Arduino / Raspberry Pi (4, 5)
- Jetson Nano & Jetson Orin Nano Dev Kits
- ESP32 / ESP32 Cam
- Xilinix KRIA KR 260
- OAK-D Lite / OAK-D Pro / OAK-D SR
- 3D Printers / 2D CNC Plotters

SOFTWARE

- Roboflow / LabelImg / CVAT
- Xilinix ISE / Vivado
- Keil µVision / MPLAB X
- Cisco Packet Tracer
- Proteus / Eagle PCB
- Visual Studio Code

CERTIFICATIONS

- Deep Learning - Computer Vision with Pytorch (Coursera ‖ Certificate)
- OpenCV Bootcamp (OpenCV University ‖ Certificate)
- Tensorflow and CNN Bootcamp (OpenCV University ‖ Certificate)
- Computer Vision Fundamentals (Udemy ‖ Certificate)
- Tiny ML Workshop (FAST ‖ Certificate)
- TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning (Coursera ‖ Certificate)
- Pytorch Bootcamp (OpenCV University ‖ Certificate)
- Introduction of Computer Vision (Great Learnings ‖ Certificate)

PROJECTS

EyeMate (FYP - Ongoing)
- Developing an assistive tool for visually impaired individuals featuring OCR, real-time auditory feedback, and obstacle detection.
- Incorporating path planning and indoor navigation to enable independent movement using a smartphone camera.

NeuroOptix
- Built a mobile robot for safety vest compliance detection and real-time 3D distance estimation to prevent industrial collisions.
- Integrated stereo cameras and provided remote monitoring via internet-based control.

Computer Vision based Attendance System
- Developed an automated attendance system using an OAK-D camera and Raspberry Pi 4.
- Captured real-time facial data and maintained attendance logs in a CSV format, reducing manual effort and increasing accuracy.

Customer Assistance Chatbot
- Built a Gemini-based chatbot for customer service automation, enabling intelligent and context-aware responses.
- Fine-tuned Llama2, BERT for a medical assistant applications to provide domain-specific support and improved conversational accuracy.

Automatic Number Plate Recognition
- Developed a YOLO Model to detect and recognize vehicle license plates.
- Implemented OCR (Paddle OCR, GPT API) to extract alphanumeric characters and log vehicle data for monitoring and access control.

Age Transformation App
- Implemented age progression and regression using a pre-trained Generative Adversarial Network (GAN).
- Generated realistic facial transformations across age groups for analysis and visualization.

Vehicle Accident Detection
- Developed a system to detect vehicle accidents using Cameras and Image Processing techniques.
- Enabled real-time alert generation via Emails for emergency response through automated monitoring and classification.

MAJOR ACHIEVEMENTS

- Winner - EME NUST COMPPEC 2024
- 1st Place - AI Innofest Competition 2024, Bahria University
- Most Promising Innovation Award - Ready Tensor
- Social Impact Innocation Award - Ready Tensor
- 3rd Position - AMD AI Competition 2024
- 1st Place - Industrial Creative Activity Term NUTech 2022

FREELANCE EXPERIENCE

Computer Vision Solution Developments - Fiverr
- Delivered professional Computer Vision Model Development and Deployment service to a global client base via Fiverr platform.
- Completed over 6+ projects with an average rating of 4.9 and a 100% client satisfaction rate.

Computer Vision Developer - LinkedIn
- Fostered strong client relationships through transparent communication, timely project delivery, and ongoing support post-deployment.
- Delivered 12+ projects acquiring from LinkedIn with a focus on accuracy, scalability, and client needs.