HASNAIN ALI ARAIN

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EDUCATION

NED UNIVERSITY OF ENGINEERING AND TECHNOLOGY   **Karachi, PK**

Bachelor of Engineering   **Oct 2019 - Aug 2023**

Major in Computer and Information Systems (with Distinction)

Cumulative GPA: 3.95/4.0; Rank 6 out of 152 (Top 4%)

Relevant Coursework: Software Engineering; Artificial Intelligence; Machine Learning

Accredited under The Washington Accord: PEC Registered Engineer

PROFESSIONAL EXPERIENCE

ARBISOFT   **Lahore, PK**

Machine Learning Engineer   **Aug 2023 - Present**

ArbiTryon

- Currently working on the Virtual tryon project, an innovative solution where users select a garment image and upload their own image to see how the garment fits them.
- Utilizing SDXL models, VITON models, and clothes segmentation models to ensure accurate and realistic virtual try-on experiences.

ArbiChat

- Led the development of ArbiChat, an internal company chatbot, streamlining efficient question answering related to Arbisoft policies.
- Utilized open source embedding models and large language models locally to power ArbiChat's capabilities.

Schoolgram

- Enhanced the Schoolgram Learning Management System with models for text comprehension and handwriting recognition, improving educational capabilities.
- Applied large language models to augment the functionality and interactivity of the platform.
- Utilized Docker and Kubernetes to ensure the scalability and reliability of Schoolgram's infrastructure.
- Collaborated with cross-functional teams to seamlessly integrate AI/ML solutions into existing educational frameworks, driving the project's success.

CROSSWING INC.   **Ontario, CA**

Machine Learning Engineer   **June 2022 - Aug 2023**

- Leveraged OpenCV for image processing, including data augmentation, image enhancement, and feature extraction to improve model robustness.
- Utilized PyTorch for building, training, and fine-tuning deep learning models, ensuring efficient handling of large-scale datasets.
- Collaborated with cross-functional teams to integrate object detection models into production systems, ensuring seamless deployment and scalability.

RESEARCH EXPERIENCE

NED UNIVERSITY   **Aug 2021 - Aug 2023**

- Research Assistant to Dr. Majida Kazmi in a project on Urdu OCR contributing to the advancements in character recognition for Urdu Language.
- Final Year Design Project under the supervision of Dr. Maria Waqas focused on the task of resolution enhancement of low-quality images using GANs.

INDEPENDENT RESEARCH   **Jan 2024 - Present**

- Conducting independent research on large language models to explore their potential applications and advancements.

PROJECTS

- DataWizard, Assistant for Data Science Tasks
- AI Assistant Builder (Independent Project)
- Arbichat, Company Policies Chatbot (Arbisoft)
- Facial Emotion Recognition in Real-Time
- Object Detection Solution for Inventory Management System
- Resolution Enhancement of Low-Quality Images using GANs (NEDUET)

TEACHING EXPERIENCE

CODE IN PLACE 2023, STANFORD UNIVERSITY   **Apr 2023 - June 2023**

Section Leader

- Instructed virtual live classes for a cohort of 10-15 students, delivering comprehensive lessons for CS106A Introductory Python programming.
- Conducted weekly sessions to support students in their learning journey, addressing questions and providing guidance on Python coding concepts.

ICODEGURU

Moderator & Trainer

- Serving as a volunteer trainer at ICodeGuru, a platform established by Silicon Valley engineers to support underprivileged students in Pakistan.

See here: Stanford: Code in Place 2024 Workshop, DSA & Leetcode Session, Duolingo Info Session

HONORS AND AWARDS

- Top Machine Learning Voice on Linkedin with 7K+ Followers
- Recipient of Prime Minister's Youth Laptop Scheme, 2023
- Recipient of AWS AI & ML Scholarship Program by Udacity, 2022
- Secured IGNITE NGIRI funding for my Final Year Project, 2023
- Shortlisted for Huawei: Seeds For the Future Program, 2022
- Winner of IEEE NED Envision, Speed Debugging Competition, 2021
- Winner of NED AI Festival, Data Science Competition, 2021
- Recipient of Google Career Certificates Scholarship by IRM, 2022
- Recipient of NED Alumni Association of Houston Scholarship, 2020
- Semifinalist for Crossroads Emerging Leaders Program by Harvard University, 2020

COURSES AND CERTIFICATIONS

- AI Programming With Python Nanodegree
- IBM AI Engineering Professional Certificate
- Machine Learning Fundamentals Nanodegree
- IBM Data Science Professional Certificate
- AWS Machine Learning Foundations
- HarvardX: Technology Entrepreneurship: Lab To Market

ADDITIONALS

Test Scores: Duolingo English Test (145/160) | GRE (Q: 164, V: 154, AWA: 4.0)

Technical Skills: Proficient in Python and SQL; Familiar in Javascript, R, Rust, C++

Frameworks and Libraries: FastAPI, Django, Flask, React, OpenCV, tensorflow, pytorch,

Artificial Intelligence Skills: computer vision, natural language processing, large language models