Areeb Adnan Khan

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Result-driven graduate with 2+ years of research exp. seeking full-time roles (May '24) in Machine Learning & Data Science

EDUCATION

Habib University, *BS in Computer Engineering with minor in Computer Science* GPA: 3.94		Aug 2020 - May 2024
Aga Khan Higher Secondary School, *HSSC in Pre-Engineering* Percentage: 88.5%		Aug 2018 - May 2020
B.V.S Parsi High School, *SSC in Computer Science* Percentage: 90.6%		Aug 2008 - May 2018

EXPERIENCE

Habib University - SUPARCO, *Undergraduate Research Assistant* | Karachi, Pakistan   May 2023 - Dec 2023
- Implement datapipiline through AWS services
- Clean, process and ingest data into AWS RDS to be sent on dashboards through API
- Apply different supervised machine learning models and fine tune them.

Habib University , *Associate Python Instructor* | Karachi Pakistan   Dec 2022 - Jan 2023
- Led an 8-person team to organize winter python workshops for first year students.
- Prepare challenging tasks and assist students in lab in debugging their solutions.

Habib University, *Teaching Assistant* | Karachi | Pakistan   Aug 2021 - May 2024
- Taught Undergraduate level courses such as Programming Fundamentals, Data Structures and Algorithms, Calculus 2, Computer Architecture (x2), Digital Logic and Design, Micro-controllers and Interfacing and Operating Systems

SKILLS

Languages	Python, C/C++, JavaScript, Matlab, PostgreSQL, SQL server, MongoDB, Git, LaTeX, VerilogHDL
Libraries	Pandas, Numpy, Pytorch, OpenCV, Tensorflow, Keras, Scikit-learn, Matplotlib, Seaborn
Software	Amazon Web Services (Lambda, IoTCore, RDS), ThingsSpeak, Ubidots, SQL management studio, Vivado, EDA Playground, Pspice, LT-spice, CISCO Packet Tracer, TinkerCAD, Creo-3D, SimuLink, Energia, Keil uvision5
Interfaces	Visual Studio, Atom, Jupyter Notebook, Google Colab, Arduino IDE
Hardware	ESP32, Arduino Uno, Jetson Nano, Rasberry pie, ESP Nano, TviaC, FPGA Basys-3 Board

PROJECTS

IntelliCropPK   May 2023 - Present
- An agrotech solution which empowers farmers to make informed decision based on ground and atomospheric data
- Implement the ML models on real time data to predict crop yeilds.

Elderly Fall Detection System   Jun 2022 - Jun 2023
- Developed a high-performance application based on the concepts of tracking an elderly system and use CV based technologies to identify fall
- Extensive usage of Pytorch and OpenCV library.

HarvestHub   Aug 2023 - Dec 2023
- Research into existing ML models for identifying cash crop suitablility
- Improve and finetune the models and develop an application interface.

FPGA based Voting machine system   Jan 2023 - Aug 2023
- Design and Implement a Prototype based on electronic voting machine but using FPGA based technology in verilogHDL.

Achievements

HU-TOPS full 100% Scholarship - Admission Grant Habib University
President's List 2022, 2023 - Habib University
Dean's List (x4), Spring 2022, Fall 2022, Spring 2023, Fall 2023 - Habib University
COP28 Project Selection Award - Prototypes for Humanity, Dubai, UAE

Publications

Engineering Proceedings Journal	DigitalNizam: Shaping the Future of Pakistani Elections through Secure FPGA Voting Solutions
IBCAST Conference'23	Intelligent Monitoring for Elderly Well-being Deep Learning-Based Activity Recognition for Fall Detection
IBCAST Conference'23	Surveying the Robotic Landscape A Comprehensive Review