Faran Taimoor Butt

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EDUCATION

National University of Science and Technology Apr. 2022 – Oct 2022
Diploma in Artificial Intelligence (Robotics) *Islamabad, PK*
Relevant Coursework: Python Programming, Machine Learning, Computer Vision, Robotics

Air University Aug. 2016 – May 2020
Bachelor of Electrical Engineering (Telecommunications) *Islamabad, PK*
Relevant Coursework: Data Structures, Algorithms, Software Engineering, Deep Learning

SKILLS

Languages: Python, Javascript, Typescript, C/C++, R, Bash, SQL, Matlab
Frameworks: React, Next.js, Node.js, Express, FastAPI, Flask, React Native, Tailwind CSS, Bootstrap, PostgreSQL, Docker, AWS

EXPERIENCE

Software Engineering Research Fellow October 2022 – Present
National Center of Artificial Intelligence *Islamabad, PK*
- Achieved a **30% improvemen**t in mapping precision and speed by developing an advanced **SLAM algorithm** using **ROS**.
- Utilized **Python** to extract 3D point clouds for mapping and obstacle detection using computer vision techniques.
- Successfully upgraded system performance by migrating to Raspberry Pi, resulting in a **20% increase** in overall efficiency.
- Implemented and refined an obstacle avoidance system, contributing to a **25% increase** in safety and reliability of Wheelchair.

Embedded Engineer Sep 2020 – Sep 2021
Technosol Private Limited *Karachi, PK*
- Proficiently programmed Arduino boards in **C** to enhance functionality and meet project requirements.
- Skillfully debugged **C code**, ensuring reliability and stability.
- Developed a web & mobile based interface using **React** & **React Native** to monitor and control embedded systems.
- Improved user interface design and system performance, leading to a **13% increase** in customer interaction.
- Collaborated with front-end and back-end teams to integrate **React component**s with **RESTful APIs**.

PROJECTS

Dine | *Next.js, Tailwind CSS, Redux, PostgreSQL, Stripe, Sanity CMS, Drizzle ORM* | Link
- Developed a full-stack e-commerce site using **Next.js**.Utilized **Sanity UI** as the CMS, allowing users to change pictures, text, and other elements seamlessly without altering the codeFor database storage, utilized **serverless PostgreSQL** on **Neon DB**.
- **Next.js API routes** implemented on the backend along with **Drizzle ORM** for database connectivity.
- Implemented auth using **JWT token** and utilized Next.js browser **cache** service.

Intellisum (Chrome Extension) | *HTML, CSS, Javascript, JQuery, Python, LLama2, Clarifai* | Link
- Developed a Chrome extension leveraging **Llama2** and **Clarifai** for intelligent summarization and text extraction from URLs.
- **Won $1000** API credits as a finalist for LLama2 Hackathon with Clarifai against **1700+ participants**.
- Selected to **pitch** Intellisum for the **LalLab Next acceleration** program.

Covid Trend Analyzer | *Python, Pyspark, Mage.ai, Docker, Kafka, dbt, Terraform* | Link
- Implemented a COVID-19 data pipeline ingesting streaming and batch data using **Pyspark** and **Kafka**.
- Used **dbt** to do data transformations and modeling along with data warehousing on **AWS Redshift**.
- Utilized **Mage.ai** for workflow orchestration and built dashboards on **AWS Looker** to see the trends.

Music Mood App | *Python, Flask, HTML, CSS, Javascript, OpenAI, OpenCV, AudioCraft* | Link
- Created an application that effortlessly gauges user's mood through their webcam feed and curates an ideal musical experience
- Utilized computer vision to analyze facial expressions and generated music using Meta's AudioCraft model.
- **Won $500** worth of goodies securing 3rd **runners up** position in the AudioCraft Hackathon.
- Implemented a user-friendly interface using **JavaScript** that allows users to input pictures or utilize their webcam.

ACHIEVEMENTS

- **2nd Position** at the Seamless M4T Hackathon out of **45 Teams** and **265+ participants**.
- **3rd Position** at the AudioCraft Hackathon out of **37 Teams** and **290+ Participants**
- **3rd Position** at the StableCode Hackathon out of **82 Teams** and **546 Participants**
- **5th Runners up** at the LLama 2 Hackathon with Clarifai out of **227 Teams** and **1765 Participants**.
- Secured **16th Position** at the Russian Open Doors Olympiad in Computer Science Stream out of **67000+ participants**.
- Creating educational computer science content , resulting in over **1500+ followers** and **6000+ likes**.