Fazal Shaik

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SUMMARY

Enthusiastic B-Tech student in AI-ML, IoT, and Computer Vision at SRM University, eager to join a creative and innovative workplace where I can contribute my energy and technical skills. Passionate about exploring my potential while aiding the organization's growth through continuous learning and innovative problem-solving.

PATENTS & PUBLICATIONS

- Published Patent (ID: 202441077282): **A System and a Method for Automated Attendance Registration in Edge Devices**. This project uses Computer Vision techniques and IoT devices to automate attendance registration through facial recognition and clustering algorithms for efficient and accurate data management.

- Published Patent (ID: 202441067500): **A System for Smart Indoor Localization and the Method Thereof**. A Computer Vision and IoT-based system for indoor navigation, leveraging advanced localization techniques to provide accurate and user-friendly navigation in complex indoor spaces.

PROJECTS (ML, IoT & COMPUTER VISION)

Attendance autocapture using CNN & k-means clustering algorithm

- Designed an automated attendance system using CNN and k-means clustering to capture and manage attendance data. The system leverages ML for increased accuracy and efficient data handling in edge devices like Jetson nano,raspberrypi's

Traffic detection and management using YOLO algorithms

- Developed a comprehensive traffic management system using YOLO algorithms combined with IoT devices. This system improves traffic flow and monitoring, achieving 91% accuracy in traffic optimization.

Deployed website "Anyhomework.co"

- Created a global file-access website with C# (.NET) and MSSQL, managing over 1.25 million events and 221,000 views in two months.

Deployed website "Hackkaro.com"

- Built a cybersecurity learning platform for beginners using C# (.NET) and MySQL, providing educational resources and interactive content.

Deployed website "thesulthan.com"

- Created a website with C# (.NET) and MySQL aimed at providing social service during the COVID-19 pandemic. The platform offered support and resources for retail shops, including assistance with operational challenges and customer engagement during the crisis.

EXPERIENCE / INTERNSHIP

Artificial Intelligence Tutor at ULEARN   *September 2024 - November 2024*

- Designed and delivered comprehensive AI curriculum from foundational to advanced concepts, tailored to the needs of students.

- Conducted interactive sessions covering topics such as machine learning, neural networks, and deep learning with hands-on projects.

- Evaluated student progress through assessments and practical tasks, fostering an engaging learning environment.

EDUCATION

SRM University AP   *8.37 CGPA*
Bachelor of Technology in Computer Science and Engineering

Bhashyam Junior College   *912/1000*
High school, Guntur, Andhra Pradesh

Sri Chaitanya Techno School (Guntur, Andhra Pradesh)   *9.3 GPA*

Research

Attendance Monitoring Using Machine Learning (ML) and Deep Learning (DL)

- Developed a CNN-based attendance system integrated with IoT devices like Raspberry Pi and Arduino.
- Enhanced system efficiency by combining CNN with real-time data processing, achieving high accuracy in attendance tracking.

Traffic Management Using Machine Learning (ML) and Deep Learning (DL)

- Designed and implemented a real-time traffic control system using YOLO algorithms for vehicle detection and classification.
- Integrated with real-time data sources and IoT devices to optimize traffic flow, achieving significant improvements in traffic management efficiency.

Roclear's 983 AI-Enabled Smart Vehicle Cleaner

- Designed an AI-powered system to automatically clean vehicles like cars and other automobiles by detecting dust using a custom dataset of "dirty" and "clean" vehicles.
- The system decides whether cleaning is necessary and initiates cleaning autonomously if dirt is detected, ensuring efficient and precise cleaning.
- Successfully developed a working prototype demonstrating the functionality and accuracy of the system.

Skills

- **Programming Languages:** Python, TypeScript, JavaScript, C/C++, Java,SQL,C#,Css,Html
- **Frontend Development:** React.js, Next.js
- **Backend Development:** MongoDB, MySQL, MSSQL
- **AI & Machine Learning:** Transformer Architectures (HuggingFace), PyTorch, OpenAI (GPT models), Deep Learning Models (Computer Vision and NLP)
- **Computer Vision:** YOLO, OpenCV, TensorFlow
- **IoT Development:** Raspberry Pi, Arduino, MQTT, Sensor Integration, Jetson Nano
- **Other Skills:** Client-Server Model, Algorithms and Data Structures, Database Optimization,AWS,Software development life cycle,Cloud
- **Soft Skills:** Problem-Solving, Abstract Thinking, Strong English Proficiency

Achievements

- Published Patent: A System and a Method for Automated Attendance Registration (ID: 202441077282)
- Published Patent: A System for Smart Indoor Localization and the Method Thereof (ID: 202441067500)
- Gold medal for research project Traffic Management and Maintenance (April 2024)
- Gold medal for research project SyncHome-AI-Bot Empowering User Recognition, Interaction, and Task Execution using YOLO algorithms (April 2024)