Ahmed Mohiuddin Shah

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LinkedIn Profile

GitHub Profile

Professional Experience

Research Intern, AgriTech Lab and EmbedAIoT

Islamabad, Pakistan

June 2024 - December 2024

- Developed and deployed computer vision systems using PaddleOCR with CUDA acceleration
- Optimized ML pipeline performance, reducing processing time from minutes to sub-second
- Collaborated on GitHub for version control and team development

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Projects

ANPR System with GPU Acceleration — *Python, PaddleOCR, CUDA, FastAPI, Next.js, PostgreSQL*

- Designed a pleasing UI for better user experience while using the system
- Implemented a computer vision pipeline for automatic number plate recognition
- Achieved 90% performance improvement through GPU acceleration
- Integrated with backend services and real-time visualization

Kitchen Konnect — *Next.js, Express.js, MongoDB, TailwindCSS*

- Designed and implemented RESTful APIs for core application features using Express.js
- Developed and optimized MongoDB schemas for efficient data storage and retrieval
- Contributed to frontend components and UI integration using Next.js and TailwindCSS

Hostelo - Hostel Management System — *Next.js, FastAPI, MySQL*

- Developed aa simple hostel management system for Database course project.
- Implemented automated Invoice and Mess bill generations and announcements.

Technical Skills

Programming Languages: C, C++, Python, Java, JavaScript, PHP

FrameWorks: Next.js, React.js, Laravel, TailwindCSS, **Tools**: Git, GitHub, Linux, VS Code, FastAPI, PostgreSQL **Machine Learning/AI**: Python, NumPy, Pandas, Scikit-learn, Jupyter Notebooks, Genetic Algorithms

Computer Vision: PaddleOCR, Image Processing, CUDA Acceleration

Embedded Systems: STM32, Arduino, ESP32, Hardware-Software Integration

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Education

National University of Sciences and Technology (NUST), Islamabad, Pakistan

Bachelor of Science in Computer Science

(Expected) 2022 - 2026

CGPA: 3.24/4.0

Additional Projects:

- **3D Graphics Engine for ESP32S3**: Embedded C implementation demonstrating optimization skills