Mohammed Adil Aman

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LinkedIn Github

Education

Masters in Computer and Information Science **August 2022 – Present**
Oklahoma State University (OSU) - Stillwater, OK, USA ***GPA: 3.33***

Bachelor of Science in Electrical and Electronics Engineering **July 2018 – May 2022**
Vignan's Foundation for Science, Technology and Research - Guntur, India ***GPA: 8.5/10***

Research Interest

• Computer Vision • Multimodal Learning • NLP & LLM • Time series Forecasting

Technical Skills

Programming Languages: Python, Java, C, C++, Shell Scripting, Arduino, HTML, SQL
AI & Data Science: PyTorch, TensorFlow, Keras, OpenCV, Scikit-learn, Pandas, Matplotlib
Web Development: Django, HTML, CSS, JavaScript, React.js, Node.js
Version Control: Git
Databases: MySQL, MongoDB, NoSQL
Technologies: Computer Vision, Object Detection, Deep Learning, Machine Learning, Big Data Analytics

Professional Experience

Programmer analyst **February 2022 – July 2022**
Cognizant Ltd *India*

- Developed multiple web applications like Smart Health Monitoring System, FullStack E-Commerce Platform using the following tools : HTML, Css, JavaScript, Java React.js, Node.js, Bootstrap, .NET,Python,SQL,No SQL.
- Developed an Employee management system(Web Application) to maintain the database of employees.

Academic Experience

Graduate Research Assistant **August 2023 – Present**
Complex Systems Lab, OSU *Stillwater, OK, USA*

- Conducting research to refine soil moisture estimation techniques using crop imagery for a USDA-funded project.
- Exploring advancements in soil moisture prediction by adapting existing time-series models and modifying deep learning architectures to improve accuracy.
- Developing a multimodal forecasting approach by merging tabular meteorological data with soil imagery to elevate prediction reliability.

Graduate Teaching Assistant **August 2023 – Present**
Computer Science Department, OSU *Stillwater, OK, USA*

- Assisted in developing and grading course materials and managed the Canvas platform for efficient distribution and organization.
- Provided one-on-one mentorship during office hours, developed and maintained course websites, and participated in departmental meetings to discuss curriculum development.
- Engaged in professional development activities to enhance teaching effectiveness. Courses taught include:
  - Unix programming (Fall 2023 & Spring 2024)

Research Assistant **May 2020 – May 2022**
Drone Technology Lab-VFSTR *Guntur, India*

- Designed and Developed different drones for different applications. Mentored Students to Design and develop Drones.
- Developed Agriculture drone, Surveillance drone, Medical Delivery drone, Delivery drone.
- Continued research focuses on integrating deep learning and machine learning techniques to enhance drone capabilities. Developed an AI-based drone capable of delivering 1kg packages over distances. This drone utilize AI decision-making algorithms coupled with integrated computer vision and object detection technology.

Projects

Multi-modal Soil Moisture Estimation: A Distinctive Approach — August 2023 – January 2024

Research Member

- Introduced a new multimodal framework called Meteorological & Image Soil-Moisture Estimator (MIS-ME) that integrates image features from soil patches with their corresponding meteorological data to improve soil moisture predictions.
- Achieved at least 4% improvement in the MAPE scores for the soil moisture regression task compared to conventional image regression architectures like ResNet or MobileNet.

FullStack E-Commerce Platform — February 2022 – July 2022

Team Member

- Developed a user-friendly admin dashboard that allows for streamlined inventory control, order management, and insight into sales data.And I have achieved a uniform shopping experience on various devices through adaptive design and incorporated multiple third-party services through API connections.
- Developed a comprehensive E-Commerce Web Application, encompassing product listings to secure transaction processing.

Smart Health Monitoring System — February 2022 – July 2022

Team Member

- Developed 'SHMS', a web application for health tracking and anomaly prediction using machine learning.
- Implemented a dashboard for health trends, reminders, and alerts using React and Node.js.
- Integrated secure APIs for data exchange with healthcare systems, ensuring data protection compliance.

Medical delivery drone — March 2022 - May 2022

Project Leader

- Developed a medical delivery drone with a speed of 18.5 miles per hour, ideal for efficient transport of medical supplies from a base station to patients' locations.
- Equipped the drone with AI autopilot technology for remote operation, ensuring precise navigation.
- Implemented obstacle detection capabilities using AI and a 360° radar system to enhance safety during flight and enable route adjustments as needed.

Agriculture Drone — December 2021 – February 2022

Project leader

- Designed and Developed A Drone to help agriculturists for spraying fertilizer on crops.
- The drone can lift 5 liters of liquid fertilizer and has 1 hour flight time per 1 full charge.Controlled in both autopilot mode and manual mode.

Awards and Honors

Received National Level Award for Technical Project Entitled "3D Printer" and "AI Delivery Drone" at National Level Tech Extravaganza Srujanankura.

Successfully secured job offers from Accenture, Cognizant, and HCL for positions as Programmer Analyst and Associate Software Engineer during campus placements.

Voluntary Activities

Head of Creative designing and Technical Vertical, Entrepreneurship Cell, VFSTR, India.