Muhammad Aaryan Tahir

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EDUCATION

Drexel University ***Philadelphia, PA***
B.S Electrical and Computer Engineering | Concentration: Computer Science *Dean's List*
- Drexel Founder Scholar - *Merit scholarship*

WORK EXPERIENCE

Exelon – Peco | Technical Services *March 2026 - Present*
AI and Automation Intern
- Deployed **PM-AI**, enterprise RAG-powered AI Chatbot trained on 15+ years of departmental data, serving **100+ active users** across Peco.
- Engineered **AVIS**, a fully autonomous Large Language Model + computer vision defect detection and Standards validation system.
- Architected a custom **AI-powered drone** for AVIS field deployment with automated Pipelines in mission planning and job selection.
- Reduced Audit workflow overhead by **83%** and in-field manual labor by **60%** though AVIS and other Automations.

Exelon – Peco | Distribution Standards *September 2025 - March 2026*
Preventative Maintenance Engineer Intern
- Deployed a Department **Server** to host automated operational scripts and multiple Power BI dashboards for real-time data reporting.
- Automated Multiple Departmental Workflows, including monthly PUC reporting, Circuit Patrol reducing reporting time by **20+** hours.
- Managed 300+ work orders for defective distribution poles, achieving 100% compliance across 3 PECO territories.
- Conducted 6 field audits across 3 PECO territories, ensuring 100% WO Standards compliance.

Drexel University | *College of Engineering* *June 2025 - Present*
Lead Researcher and Founder: Drexel Alumni Labs *website: visionii.vercel.app*
- Led a Team of 5 researchers to deploy an edge-inference computer vision Safety device for autonomous multi-feed threat detection.
- Monitors **40+** camera feeds simultaneously using Nvidia Jetson, Vision and edge AI, cutting incident response time to under **60 seconds**.
- Achieved **94%** detection accuracy and **73%** reduction in false alarms by training real-time threat detection models with mass datasets.
- Co-authoring publication with Drexel faculty on AI security systems, documenting Vision AI's architecture and real-world deployment.

Drexel University | *College of Computing & Informatics (CCI)* *March 2025 – Present*
Senior Technical Ambassador
- Directed a team of 12 Technical Ambassadors on tasks across Canvas, Blackboard, and 20+ university hackathons and technical events.
- Engineered an LLM-powered ticket automation system that processes 100+ support tickets simultaneously.
- Performing intelligent triage, auto-resolution, stakeholder notifications, and closure - reducing manual support overhead by 70%.

PROJECTS

CCI-Bot (College of Computing & Informatics) *Full Stack Developer*
- Deployed **CCI-BOT**, an on premise LLM chatbot trained on 10+ years of Drexel support data, serving **5,000+ students** monthly.
- Deployed on Drexel's internal network (VPN-restricted), providing 24/7 autonomous query resolution.
- Achieved **86% satisfaction rate** via Drexel survey and **20% reduction** in support wait times across Drexel's CCI student userbase.
- Built on a self-hosted Linux server using Ollama, HuggingFace, Vector Storage, and n8n – fully on premise with no cloud dependency.
  Tools: Ollama, HuggingFace, n8n, Vector Storage, Linux Server, TDX Ticket Handling

Drexel Bench *Full Stack Developer | Engineer*
- Engineered an **IoT seating tracker** using Raspberry Pi, sensors, display and a web app for real-time occupancy updates.
- Built a dynamic web application that Reflects live occupancy status and real-time status on LCD display.
- Programmed Raspberry Pi to transmit real-time occupancy data via HTTP directly to the frontend.
- In collaboration with **Drexel Dining**. Reduced student waits by **30%**, based on **1000+** student Userbase.
  Tools: Raspberry Pi, OLED, CSS, HTML, JavaScript, Blender (3D Modeling)

LEADERSHIP EXPERIENCE

- **Student Advisor for Senior Design** - *Drexel College of Engineering*
- **Club Sports Supervisor** - *Drexel University Recreation*
- **Technology and Digital Communications Coordinator** – *The Step School System*
- **Engineering Peer Mentor** - *Software & Electrical - National University of Sciences and Technology (NUST)*

TECHNICAL SKILLS

- **Languages:** Python, C#, JavaScript, SQL
- **Tools & Frameworks:** React, Docker, Kubernetes, Linux, GitLab CI/CD, Git, LangChain, PyTorch, OpenCV, HuggingFace, Ollama
- **CAD & Modeling:** AutoCAD, Blender, SolidWorks, Fusion 360, ARC GIS
- **Design:** Figma, Adobe: After Effects, Photoshop, Illustrator