Samir Mahmood

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EDUCATION

American University of Sharjah   Sharjah, UAE
Bachelor of Science in Computer Science   *Aug 2020 – Jun 2024*
Minor in Data Science

Won **2nd position amongst 30+ teams** at the College of Engineering Senior Design Projects Competition.

Received **Undergraduate Research Grant** (2023-2024)

Received several **scholarships**: Outstanding Student Scholarship, Shabana & Faizal Endowed Scholarship, Bybit Operational Scholarship.

PROFESSIONAL EXPERIENCE

Crescent Petroleum   Sharjah, UAE
Software Engineer   *Jun 2024 – Sep 2024, Internship*

- Developed a chatbot in **Python** powered by the Azure OpenAI API, combining LLM agents to enable **text-to-SQL** and **text-to-graph** capabilities over a **PostgreSQL** database (**RAG**).
- Developed a **Django** based web application for LLM-enabled text summarisation over a **MySQL** database.

Petrofac   Sharjah, UAE
Data Scientist   *Jun 2023 – Aug 2023, Internship*

- Built a **RAG** system in **Python** using **LangChain** for intelligent document Q/A with LLaMA 2.
- Developed **Power BI** reports and prepared mobile views for existing reports.
- Participated in a training rotation between different IT verticals (AI/ML, Data Engineering, Business Intelligence), being exposed to **Python**, **Power BI**, **SQL**, and **Azure**.

CSE Department, American University of Sharjah   Sharjah, UAE
Computer Science Grader   *Jan 2023 – May 2023, Part-time*

- Graded C++ programming assignments and provided learning feedback to over 60 students as a grader for the course CMP 305: Data Structures and Algorithms.

ICT & IT Security Department, American University of Sharjah   Sharjah, UAE
IT Student Worker   *Aug 2021 – Dec 2021, Part-time*

- Provided technical support to students and faculty across 3 buildings under the College of Engineering.
- Performed upgrades and maintenance of software and hardware in technical labs.

SKILLS

Languages: Python, C++, Java, SQL, HTML/CSS, JavaScript
Technologies: Version control (GitHub), Power BI, Microsoft Certified: Azure Fundamentals, Django

PROJECTS

Hierarchical YOLO with Real-Time Text Recognition for UAE Traffic Signs | *GitHub* | *Preprint*
Graduation Design Team Project

- Lead the integration of the hierarchical object detection (YOLOv8) system with the text recognition (PARSeq) system.
- Annotated images for the development of a new text, panel, and symbol detection dataset containing over 1000 images of UAE traffic signs.

EXTRACURRICULAR ACTIVITIES

Astronomy Club   American University of Sharjah
Vice President   *Spring 2024*
- Spearheaded the organisation of a successful desert stargazing and barbecue trip for over 150 attendees, in collaboration with 4 other university clubs.
- Led and managed the club and its subcommittees (Events, Media, PR) alongside the President.
- Conducted hiring interviews for various club positions.

Astronomy Club   American University of Sharjah
Events Team Member   *Spring 2023, Fall 2023*
- Planned and executed club events including Club Fair and stargazing nights.

Music Club   American University of Sharjah
Treasurer   *Spring 2023*
- Managed financial affairs and event budgeting for the club, including record-keeping and seeking funding opportunities.
- Assisted the team with event planning and execution.

[Engineering Shadow Program]   American University of Sharjah
Mentor   *Fall 2022, Spring 2023*
- Selected by the College of Engineering to mentor exceptional high school students, allowing them to experience a day in the life of an AUS engineering student.

Astronomy Club   American University of Sharjah
Media/PR Team Member   *Spring 2021*
- Developed social media strategy and produced social media content for the club's Instagram account.
- Assisted the events team in organising and hosting events.
- Liaised between the club and the wider university community.

INTERESTS

Astronomy, Astrophotography, Technology, Guitar, Motorsport, Esports

LANGUAGES

English, Hindi/Urdu