Mohamed Hesham

512-844-2968 | hesham@txstate.edu
San Marcos, TX | LinkedIn | GitHub

EDUCATION

Texas State University, San Marcos, TX   Dec 2025
Master of Science, Computer Science   GPA: 3.91
Relevant Coursework: Algorithm Design and Analysis, Software Quality and Software Maintenance.
Unity Technologies – Scholarship Winner   Jan 2024
Arab Academy for Science, Technology & Maritime Transport, Cairo, Egypt   Jun 2019
Bachelor of Engineering, Electronics and Communications
University of Technology Malaysia, Johor Bahru, Malaysia   Jan 2018
Semester Abroad

EXPERIENCE

Texas State University, San Marcos, TX   Jan 2024 – Present
Technical Support Graduate Assistant
- Provided technical support to students and staff, resolving hardware, software, and OS-related issues.
- Performed system migrations, OS re-imaging, software installations and diagnosed BSOD and hardware issues.
- Developed Python and SQL automation tools to streamline IT processes and reduce manual workload by 40%.
- Collaborated on hardware reviews and deployed optimized tools across IT systems in a Windows environment.

J&M Jewelry, San Marcos, TX   Jan 2025 – Apr 2025
Software Engineer Intern
- Built a real-time synchronization pipeline from SQL to Wix CMS, reducing inventory data inconsistency by 25%.
- Improved overall database performance by 30% through advanced query optimization and indexing strategies.
- Engineered a data pipeline (Python, SQL) to automate vendor inventory management and CMS updates, improving data consistency and scalability.

Orange Business, Cairo, Egypt   Dec 2019 – Dec 2023
Network Shift Leader
- Led a team of engineers, overseeing operations, optimizing infrastructure, and ensuring VoIP availability.
- Designed and implemented SIP routing strategies, reducing latency and enhancing call quality across networks.
- Developed automation scripts to streamline VoIP diagnostics, improving efficiency and reducing workload.
- Analyzed and optimized LAN/WAN topologies, integrating QoS to enhance data traffic efficiency and scalability.

PROJECTS

Shop Scanner – Developer
- Designed a lightweight and accessible UI to support clear, intuitive navigation for users with visual impairments.
- Built a mobile app to assist visually impaired users using Google Cloud Vision API for real-time object detection.
- Integrated text-to-speech for auditory feedback, enabling hands-free awareness of their surroundings.

Diving Planner – Developer
- Developed a full-stack web application (React, Flask) integrating real-time APIs and dynamic data pipelines.
- Integrated OpenWeather, StormGlass, and ChatGPT APIs to match site conditions with diver experience.
- Implemented dynamic UI updates, form validation, and REST API design for better user experience.

HPC & Distributed Computing – Developer
- Designed and automated distributed machine learning workflows (Python, Dask, XGBoost), focusing on scalable infrastructure and performance optimization, and used Git for version control to manage code and track work.
- Optimized performance through efficient parallel computing techniques and improved multi-node job scheduling processes.

SKILLS

Programming Languages: Proficient in Python, C, JavaScript, MATLAB, SQL, HTML/CSS.
Technologies & Tools: Linux, Git, Google Cloud APIs, React.js, Flask, OpenMP, MPI, Dask.
Certifications: Intermediate Software Engineering (CodePath, Aug 2024) | CS50 (Harvard, Dec 2023) | Certified ScrumMaster (Jun 2023) | French Delf B2 Diploma (May 2021).