

MAAZ MUGHAL

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Education

George Mason University <i>Bachelor of Science in Information Technology</i>	Sep 2022 – May 2026 Fairfax, VA
– Concentration: Cybersecurity and Cloud Computing	
– Relevant Courses: Network Security, Information Defense Technologies, Forensics & Auditing, Applied Generative AI, Data Communications, OS Fundamentals, Database Management, IT Project Management	
– Awards: Dean's List Scholar, GMU Undergraduate Research Scholarship Program Award Recipient [Fall 2024]	
– Certifications: CompTIA Security+, AWS Solutions Architect Professional, AWS Certified Developer Associate, AWS DevOps Engineer Professional, IBM Cybersecurity Analyst Professional Certificate	

Experience

Peer Mentor <i>George Mason University</i>	Feb 2024 – Dec 2024 Fairfax, VA
– Provided one-on-one academic guidance to undergraduates in technical courses, assisting 10–15 students weekly.	
– Facilitated interactive study sessions and resource sharing, boosting student engagement and retention during exam prep.	
Data Engineer & Web Developer (Contract) <i>Upwork</i>	Jun 2023 – Dec 2024 Remote
– Delivered secure, high-performance client solutions across data engineering and web development.	
– Built ETL pipelines with SQL and cloud platforms (Azure, Google Cloud), transforming raw data into analytics-ready datasets.	
– Designed responsive websites and integrated APIs, payment systems, and AI-driven tools (chatbots, analytics).	
– Optimized queries, managed relational databases, and implemented backup/recovery for compliance.	
– Developed automated dashboards with Excel, Office 365, and Power BI, enabling data-driven insights.	
IT Administrator Intern <i>Worldwide Travel Inc.</i>	Jan 2023 – Apr 2023 Washington, DC
– Assisted in troubleshooting hardware/software issues and provided technical support to end-users.	
– Conducted system updates, network maintenance, and backup/recovery procedures to ensure reliability.	
– Installed and configured computer systems, improving IT support response time and overall system stability.	
Summer Intern <i>Cloud Tech IT Solutions LLC</i>	Apr 2019 – Sep 2019 Dubai, UAE
– Constructed a credit card fraud detection autoencoder (TensorFlow and Python).	
– Extracted business requirement analytics from terabyte-scale data to model client solutions.	
– Conceptualized a future AI pipeline to estimate uptime and downtime from CI/CD pipeline data.	

Projects

Real-Time E-Commerce Data Pipeline <i>Python, SQL, PySpark, Kafka, Airflow, AWS</i>	Jan 2025 – Present
– Built a real-time e-commerce pipeline with a medallion data model (Bronze/Silver/Gold) to support analytics.	
– Implemented data ingestion with Kafka, transformations in PySpark, and orchestration via Apache Airflow.	
– Stored data in Parquet, queried with DuckDB/Redshift, and created KPI dashboards with Streamlit and Power BI.	
Degree Design <i>Android Studio, Java, Firebase, Git, Jira, JUnit, Mockito</i>	Mar 2024 – Aug 2024
– Created an Android app that allows students to generate personalized degree timetables based on completed and desired courses.	
– Engineered an authentication system for secure timetable access and an admin panel for managing course information.	
– Conducted functionality testing using JUnit and Mockito to identify and resolve bugs efficiently, reducing fault rate by	
Network Penetration Testing Tool <i>Python, CVE APIs, Ethical Hacking</i>	Jan 2024 – May 2024
– Developed an automated penetration testing tool with CVE scanning and reporting to detect critical vulnerabilities.	
– Designed a simple user interface for faster vulnerability analysis, improving accessibility for non-expert users.	
– Applied hands-on cybersecurity skills in ethical hacking, network defense, and vulnerability management.	

Technical Skills

Languages: C, Python, Java, R, JavaScript, TypeScript, HTML, CSS, Racket, Haskell, Prolog, PostgreSQL, Kotlin, Terraform
Frameworks: React, Express, Node, React Native, Next, Vercel AI SDK, LangChain, LangGraph, Exa, CrewAI, Redis
Cloud: AWS (S3, EC2, Redshift, IAM, CloudWatch), Azure, GCP
Security: Wireshark, Nmap, CVE Scanning, Penetration Testing
Tools: AWS, MongoDB, Supabase, Clerk, Docker, Jira, Git, Figma, Android Studio, Firebase, Linux, Agile, HuggingFace, Office 365
Libraries: Pandas, NumPy, Matplotlib, socket.io, scikit-learn, Crawl4AI, PyTorch, Tensorflow, Keras