

Abdalla Mohamed

4696554813 | abdallam.personal@gmail.com | Arlington, TX, USA
linkedin.com/in/abdalla-hassan-mohamed/ | abdallam1007.github.io | github.com/abdallam1007

EDUCATION

Ph.D. Student in Computer Science University of Texas at Arlington	2025 – Current GPA: 4.0/4.0
B.S. in Computer Science Carnegie Mellon University	2019 - 2023 GPA: 3.5/4.0

WORK EXPERIENCE

University of Texas at Arlington Arlington, TX Teaching Assistant	 08/2025 – Current
<ul style="list-style-type: none">Served as Teaching Assistant for CSE 3330 in Fall 2025 and Spring 2026Assisted students through office hours, clarifying concepts and resolving technical questionsEvaluated assignments, quizzes, and exams while maintaining consistent grading standardsConducted lectures and organized review sessions when required	
Carnegie Mellon University Doha, Qatar Research Assistant	 04/2025 - 08/2025
<ul style="list-style-type: none">Designed and delivered hands-on computer science and robotics workshops for audiences ranging from grade school students to working professionals, translating complex technical concepts into accessible materialDeveloped and maintained technical curricula and instructional materials covering programming, algorithms, and robotics systemsDebugged and repaired robotic hardware and software systems, diagnosing sensor, control, and integration issues to ensure reliable operation during sessionsEvaluated and experimented with multiple robotics platforms to assess suitability for future educational deploymentsCollaborated with faculty and outreach staff to plan and execute technical camps and training programs at scale	
Avey Doha, Qatar Full Stack Engineer	 03/2024 - 11/2024
<ul style="list-style-type: none">Built and maintained web applications using Django with RESTful APIs and React frontendsDesigned clean API interfaces and integrated frontend components for responsive user experiencesProvided on-call production support, diagnosing and resolving system failures under time constraintsImproved system stability by quickly mitigating outages and performance issues	
Snoonu Doha, Qatar Software Engineer	 04/2023 - 03/2024
<ul style="list-style-type: none">Designed and implemented backend services using C# and .NET, contributing to production-scale systems used by thousands of usersDeveloped standalone SaaS components, supporting business expansion and revenue growthDebugged and optimized backend services to improve system reliability and performanceCollaborated with cross-functional teams to deliver features end-to-end in an agile environment	

PROJECTS

Clustering on MapReduce and MPI | Java, C

Implemented the k-Means clustering algorithm using MPI and Hadoop MapReduce in C and Java. Performed performance and scalability evaluations comparing MPI and MapReduce across multiple datasets, analyzing the impact of process counts, map slots, HDFS block sizes, and cluster size to understand parallel efficiency and system trade-offs

Distributed File System and Access Kit | Java

Designed and implemented a Distributed File System in Java RMI that supports remote file operations across multiple storage servers. Enhanced the basic system with synchronization using read-write locks to ensure consistency under concurrent access and developed dynamic replication and load balancing policies to improve performance and scalability by redirecting clients to multiple replicas rather than a single server.

Video Content Distribution Networks (CDN) | C

Augmented an HTTP proxy by adaptive bitrate selection using throughput estimation to stream the highest quality encoding possible. Implemented DNS load balancing using round-robin and geographic distance to spread the load of serving videos among multiple servers.

BitTorrent | C

Developed a Peer2Peer BitTorrent-like file transfer application that enables simultaneous upload and download of chunks of files. Implemented Slow Start, Congestion Avoidance, Fast Re-transmit and Fast Recovery mechanisms on top of UDP to ensure fair, reliable, and efficient network utilization.

SKILLS

C | C++ | C# | .NET | Python | Java | ML | Javascript | React | PyTorch
| Linux | Docker | Github | Kubernetes | GitLab | GitFlow
| MySQL | SQL

TECHNICAL STRENGTHS

Django Framework | Computer Networks | Algorithms and Data Structures | Agile and Scrum