

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

Started: 08/2025
GPA: 4.0/4.0

B.S. in Computer Science
Carnegie Mellon University

Graduated: 05/2023
GPA: 3.45/4.0

WORK EXPERIENCE

Carnegie Mellon University | Doha, Qatar | Research Assistant | 04/2025 - 08/2025

- Designed and delivered hands-on computer science and robotics workshops for audiences ranging from elementary students to working professionals, translating complex technical concepts into accessible material
- Developed and maintained technical curricula and instructional materials covering programming, algorithms, and robotics systems
- Debugged and repaired robotic hardware and software systems, diagnosing sensor, control, and integration issues to ensure reliable operation during sessions
- Evaluated and experimented with multiple robotics platforms to assess suitability for future educational deployments
- Collaborated 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

- Built and maintained web applications using Django with RESTful APIs and React frontends
- Designed clean API interfaces and integrated frontend components for responsive user experiences
- Provided on-call production support, diagnosing and resolving system failures under time constraints
- Improved system stability by quickly mitigating outages and performance issues

Snoonu | Doha, Qatar | Software Engineer | 04/2023 - 03/2024

- Designed and implemented backend services using C# and .NET, contributing to production-scale systems used by thousands of users
- Developed standalone SaaS components, supporting business expansion and revenue growth
- Debugged and optimized backend services to improve system reliability and performance
- Collaborated with cross-functional teams to deliver features end-to-end in an agile environment

PROJECTS

Clustering on MapReduce and MPI | Java and C

Implemented parallel K-means using MPI and HadoopMapReduce, then compared their performance. - Conducted a scalability study on the MapReduce implementation analyzing the impact of the number of map slots, HDFS block size and the number of machines on performance.

Distributed File System and Access Kit | Java

Built a Distributed Remote File Storage System. Used RMI-invocation for communication between entities. Implemented coarse-grained locks to synchronize access to the file and avoid deadlocks. Improved access time by intelligent replication of files.

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.

COURSES

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

AWARDS

- **Dean's List for 2 semesters** at CMU

COMMUNITY

-