Abdelrahman Qamhia

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Education

Lehigh University — Graduated May 2025
B.S. in Computer Engineering, GPA: 3.71 — Major GPA: 3.82 — *Pennsylvania, USA*

- Academic Honors: IEEE Honor Society (HKN), Frank Williams Scholarship, Dean's List, KL-YES Exchange Program Awardee.
- Coursework: Data Structures & Algorithms, Operating System Design, Software Engineering, Web Systems Programming.

Internship Experience

Progineer Technologies — October 2025 - December 2025
Data Integration Engineering Intern — *Ramallah, Palestine*

- Built and maintained data pipelines using internal systems to ingest, clean, and transform data from multiple sources.
- Developed Python scripts to clean, transform, and validate data from multiple sources before loading into SQL Databases.
- Wrote SQL queries to extract, join, and analyze data from complex relational databases for internal analysis.

WEHEAD — May 2024 – Aug 2024
Software Engineering Intern — *California, USA*

- Built and fine-tuned 15+ AI avatars by optimizing prompt engineering and fallback strategies, improving NLP response accuracy and user engagement.
- Developed a full-featured React admin dashboard integrated with Azure Functions and OpenAI APIs to manage avatar lifecycles and system states.

Technical Experience

Lehigh University — Aug 2024 – May 2025
Grader, Web Systems Programming — *Pennsylvania, USA*

- Assessed 50+ projects weekly, providing in-depth feedback on full-stack web apps to enhance student learning.
- Mentored 50+ students in debugging and optimizing applications using Node.js, Express.js, React, and MongoDB.

Lehigh University — Aug 2024 – May 2025
Library Technical Assistant, FML Library — *Pennsylvania, USA*

- Curated and organized 2,000+ catalog records in FOLIO to improve system accuracy and resource accessibility.
- Diagnosed and maintained library technology, minimizing downtime and improving user satisfaction.

Lehigh University — Aug 2022 – May 2023
Teaching Assistant, Applied Engineering and Robotics — *Pennsylvania, USA*

- Supervised lab sessions and held office hours for up to 50 students, focusing on troubleshooting technical issues.
- Managed weekly maintenance of 45+ mini robotic cars, ensuring functionality and assisting students with technical problems.
- Designed hands-on demonstrations, focusing on real-world applications of embedded systems and robotics theory.

Projects

Lehigh University — Aug 2024 – May 2025
Chess Board Learning System — Capstone Project — *Pennsylvania, USA*

- Built a smart chess board system using GPIO-driven square indexing to detect game state and LED-guided move suggestions.
- Interfaced with a digital chess engine for real-time game analysis and board feedback using Python.

Lehigh University — Aug 2024 – Dec 2024
Lehigh University Chat App — React JS & Google Firebase — *Pennsylvania, USA*

- Built a messaging app using React, Firebase Auth, Firestore, and Storage with secure login, friend requests, and image uploads.
- Implemented user blocking and emoji support to enhance safety and expressiveness in RA-student conversations.
- Added timestamps and search functionality to improve message traceability and chat navigation.
- Utilized Zustand for lightweight state management and consistent UI behavior.

Technical Skills

- Programming Languages: Java, Python, JavaScript, SQL, C/C++, HTML, CSS, MIPS Assembly, Verilog
- Web/Frameworks: React, Node.js, Express, Material-UI, Bootstrap, jQuery
- Tools/Platforms: Git, Docker, MongoDB, VS Code, Postman, Linux, Dokku, LaTeX
- Languages: English (Fluent), Arabic (Native)