# HASHEM ABDELATI
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## EDUCATION

**George Washington University (2022 - 2026)**
*Bachelor of Science in Computer Science*
- CS Technical Projects Club - Communications Chair
- Engineering Council - Vice President

## EXPERIENCE

**Zain JO**                                                                                 Amman, Jordan
SOFTWARE ENGINEERING INTERN                                      May 2025 - August 2025
- Helped in the development of an AI powered call center chatbot by implementing semantic search with OpenAI embeddings and a Pinecone vector database, enabling instant retrieval of solutions from hundreds of internal support documents.
- Preprocessed and vectorized English and Arabic documents using Python (LangChain) to design a multilingual retrieval pipeline that ensured accurate, real-time answers across both languages.

**LigaData**                                                                                Washington DC
SOFTWARE ENGINEERING INTERN                                     January 2024 – June 2024
- Conducted unit and integration testing using Postman, JUnit, and automated scripts, identifying defects and validating performance to ensure software met functional requirements.
- Integrated Python based data pipelines with AI/ML models to enhance Future Time Machine's (FTM) ability to process millions of subscriber records, enabling telecom operators to extract actionable insights.
- Optimized FTM compliance workflows by implementing real time monitoring and resource allocation logic, supporting global deployments across multiple operators.

**Mawdoo3**                                                                                 Amman, Jordan
FULL-STACK ENGINEERING INTERN                                   May 2023 – August 2023
- Enhanced the usability and aesthetics of the Mawdoo3 platform (the largest online content site in the Arab world with 50M+ monthly users) by developing responsive front-end features with HTML, CSS, JavaScript.
- Led improvements to the login page experience, architecting semantic HTML structure and optimizing CSS for cross-device responsiveness, faster load times, and a modern, intuitive user interface.

## TECHNICAL PROJECTS

**Container Infrastructure for xv6 UNIX – Shared Memory & Virtual Memory Management (C, xv6)**
- Developed a shared memory management system within the xv6 operating system.
- Designed kernel-level data structures to handle shared memory reference counting, ensuring proper deallocation upon process termination.
- Applied synchronization mechanisms such as mutexes and condition variables to ensure safe concurrent access to shared memory.
- Contributed to containerized process isolation by restricting shared resources within namespaces

**University System – Python, HTML/CSS, JavaScript, MySQL (AWS)**
- Implemented an online course registration system as part of the Application, Registration, and Graduation System (ARG) project, supporting over 2,000 students and faculty members. The system enables graduate students to register for courses, instructors to submit grades, and both students and the Grad Secretary to search and view transcripts. A user-friendly interface, with robust input validation and a scalable architecture capable of handling over 500+ simultaneous users. Deployed using SQL AWS and Python Flask.

**Shopping website – Python, HTML/CSS, SQL**
- Engineered an e-commerce platform for comic book enthusiasts, with a catalog of over that can host 1000 items, featuring seamless integration between the front-end user interface and back-end database operations. The platform can process over 200 transactions per hour, utilizing secure payment processing and a responsive design for desktop and mobile.

## ADDITIONAL

**Technical skills:** Java, C, HTML/CSS, Python, SQL, AWS, GitHub, Scala, C#, Unity, React, Node.js, Final Cut Pro, Blender, Visual Studio Code, Gadot, Kotlin
**Relevant coursework:** Algorithms & Data Structures, Computer Architecture, Foundations of Computing, Databases, Operating Systems, Algorithms, Game Design, Discrete Structures, Software for handheld devices, Machine Learning, Computer Security, Introduction to Artificial Intelligence
**Languages:** Fluent in English and Arabic
**Certifications**: International Baccalaureate Diploma