

# MOHAMED HARBY

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## EDUCATION

**Bachelors of Computer Engineering, Tanta University** Sept 2018 — June 2023  
**Major** Electrical Engineering (in-major grade: 76.84%)  
**Certificate (Minor)** Computer Engineering  
**Programming Coursework** Data Structures & Algorithms, Databases, Operating System, Networking, Machine Learning.

## EXPERIENCE

**Java Developer, Intern** Apr. 2023 — Oct. 2023  
*JobHacker* Cairo, Egypt

- Accomplished proficiency in Java, OOP, Databases, Hibernate, and Spring (Boot, Core, MVC, Data, Security).
- Achieved competence in utilizing software engineering tools, including UML diagrams and Git.
- Gained practical experience in building enterprise-scale Java applications.
- Leveraged knowledge in Spring Framework, Databases, Java technologies, and Git.

**Software Developer, Intern** Aug. 2022 — Nov. 2022  
*bld.ai - Openstack team* Remote, USA

- Reduced new projects creation and configuration time for developers by developing a projects creation tool with plenty of boilerplate code for their use.
- Incorporated Git technologies for building various projects with customized configurations effectively.
- Developed a web application and a CLI tool to help developers use the creation tool easily.
- Leveraged knowledge in JavaScript, Python, Web development, Git, agile methodologies.

## SOFTWARE PROJECTS

### E-Commerce Microservices application (JobHacker Graduation Project)

- Designed the SQL database for all services.
- Implemented the order service and connected it with other services.
- Configured a message broker to send order details to notification service.
- Utilized Microservices, Java, Spring boot, Spring JPA, RabbitMQ, and MySQL.

### Scouter Search Engine

- Implemented the crawler part of search engine that crawl web pages with different depth and breadth techniques to guarantee the variety and accuracy of search results.
- Utilized Java, and search techniques.

### Recommendation System

- Used hybrid approaches (Content-based filtering and Collaborative filtering) to generate a list of candidate channels to each user.
- Used Cosine and Jaccard similarity metrics to generate the candidates.
- Increased the coverage by doing exploration and exploitation using Epsilon-Greedy approach.
- Utilized Content-based filtering, Collaborative filtering, similarity metrics.

### Sorting Visualizer

- Developed a C++ application that visualizes common sorting algorithms like merge sort, quick sort, and insertion sort.
- Provided interactive visualization of the sorting process, aiding in algorithm understanding and analysis.
- Utilized C++, and search algorithms.

## SKILLS

**Proficient** Spring Framework, Java, C++, JavaScript, React, Git, SQL.  
**Familiar** Python, HTML/CSS, Machine Learning, Front-end tools.

## ACHIEVEMENTS

- Qualified to the ACPC programming contest 2024.
- Got the 56th place in ECPC 2023 out of 2400 teams and the 74th place out of 2000 teams in ECPC 2022.
- Ranked 4th on the 4th day of ECPC Qualification Round 2023.