

Waleed Khamees

Backend Engineer
Cairo, Egypt

+20 1029356285 waleed.khamees@gmail.com waleedkhamees.com

Biography

Backend Developer with experience in **distributed systems, cloud computing, and API design**. Skilled in building scalable, reliable backend solutions and optimizing system performance. Passionate about creating efficient server-side architectures.

Education

- Cairo University** **Cairo, Egypt**
B.E. in Computer Engineering - GPA: 3.4 Fall 2020 - Fall 2025
 - Graduation Project: Inferex**
 - Developed a computer program that takes in the user's context (screenshots, videos, pdfs) and answers their questions from this context.
 - Losslessly compressed an LLM model from **8.5GB** to **5GB** using huffman encoding and an on-the-fly decompression GPU Kernel.
 - Fine-tuned an extractive question answering and improved model's performance on non-answerable questions by **5%**.

Experience

- Ejada** **Hybrid**
Cloud Computing Intern July 2024 - August 2024
 - Participated in deploying a multi-tier book reservation platform.
 - Worked with GCP services, including VMs, VPC, Cloud SQL, and Block storage.
 - Learned about other GCP services like Cloud Functions, BigQuery, IAM, GKE, Cloud Run, and App Engine.
- Farahy and TheWizard** **Remote**
Frontend Intern September 2023 - October 2023
 - Designed a dashboard for genie customer management and welcome page for 2nd farahy anniversary.
 - Developed interactive dashboards using React, and figma, focusing on user-friendly interfaces.
 - Collaborated closely with the design team to transform Figma prototypes into functional web designs.

Achievements

- Faculty's Micromouse Competition** - First and Second Place
 - Played a key role in Designing and soldering the PCB of the robot.
 - Participated in solving Issues faced by the robot during maze solving.
- 8th Undergraduate Engineering Mathematics Research Forum** - First Place
 - Researched on the impact of decisions made by individuals in CS/CE careers.
 - Shed light on potential consequences of these decisions.

Projects

Monkey Parser - A parser for an interpreted programming language

- Implemented the Lexer, parser, evaluator as well as the REPL for the language.
- Used TDD during the development of each module to ensure reliability.

Twitter Clone Mobile - Twitter clone with most of Twitter's functionality

- Implemented real-time push notifications and a streamlined socket API.
- Assisted in developing the profile screen, edit profile functionality, and notifications screen.

Wireless-DFS: Distributed File System - Network-based file system built in Go

- Designed a resilient DFS using gRPC for control messages and TCP for file transfer across distributed nodes.
- Implemented client and server logic for the MasterTracker and DataKeeper services with file upload/download support.
- Developed heartbeat and replication mechanisms to ensure system reliability and fault tolerance.
- Addressed issues like file duplication via hashing and dynamic port allocation for parallel transfers.

Match Maker: Full-Stack Match Management Platform - Web-based football event system using Go and Next.js

- Built a role-based platform (Guest, EFA, Master) for match reservation, approval, and real-time status updates.
- Implemented a RESTful Go backend with JWT auth, middleware-based access control, and Swagger documentation.
- Developed a responsive Next.js frontend with TailwindCSS and Context API for state and error management.
- Structured modular services for matches, users, teams, stadiums, and seats with clear routing and models.
- Added WebSocket support for live updates.

Arabic Font Recognition - Classifies 4 typefaces of Arabic

- Implemented preprocessing module and debugged the classifier.
- Achieved 94% accuracy in the final model.

Car License Plate Detector - Extracts Egyptian car plate information

- Extracted car plate information with high accuracy and optimized performance.
- Helped in implementing the server for handling input.

Almost Google - A Java-Based Search Engine

- Designed and implemented **multithreaded crawler, indexer, and ranker** components to efficiently process and rank over **6000+ web pages**.
- Integrated **phrase search** functionality to enhance result accuracy by supporting exact-match queries.
- Focused on scalability and performance through optimized data structures and concurrent processing.

Skills

General Technical Skills: Object-Oriented Programming, Data Structures and Algorithms, Linux, REST APIs, SocketIO,

Programming Languages: GoLang, JS/TS, Java, Python, Dart, C++

Frameworks and Tools: Gin, Node.js, Next.js, React.js, Flask, Pytorch, tensorflow, PostgreSQL, Figma, Tailwind, Flutter, Bash.

Languages: Arabic (Native), English (Proficient, IELTS Score: 7.5)

Certificates

[AWS Certified Solutions Architect - Associate](#)

[AWS Certified Cloud Practitioner](#)

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