

# Waleed Khamees

Cairo, Egypt

+20 1029356285

[waleed.osama.khamees@gmail.com](mailto:waleed.osama.khamees@gmail.com)

[github.com/WaleedKhamees](https://github.com/WaleedKhamees)

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## Experience

### Ejada

Cloud Computing Intern

Hybrid

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

Frontend Intern

Remote

September 2023 – October 2023

- Developed interactive dashboards using React, focusing on user-friendly interfaces.
- Collaborated closely with the design team to transform Figma prototypes into functional web designs.

### Faculty of Engineering, Cairo University

Embedded Systems Training

Cairo, Egypt

September 2023 – October 2023

- Gained proficiency in C programming for embedded systems.
- Developed drivers for I/O operations, timers, I2C, keypad, LEDs, switches, and EEPROM.
- Applied concepts in creating a random digit randomizer.

## Skills

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

**Programming Languages:** C, TypeScript, Java, Python, Dart, Rust, Go

**Frameworks and Tools:** React.js, Figma, Tailwind, PostgreSQL, Flutter, Bash, Node.js, Next.js

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

## Education

Cairo University

B.E. in Computer Engineering (Expected 2025) - GPA: 3.4

Cairo, Egypt

Fall 2020 – Fall 2025

## 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.

## Certifications

### AWS Certified Cloud Practitioner

Issued September 2024

- Demonstrated knowledge of AWS cloud fundamentals, billing, pricing models, and security practices.
- Familiar with core AWS services including EC2, S3, RDS, and IAM.

# Open Source Contributions

**env: adds –ignore-signal** - Coreutils: Cross-platform Rust rewrite of the GNU coreutils

- Implemented Ignore signal functionality to unix-like systems.
- Added unit tests to ensure correct functionality.

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## Projects

**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.
- Collaborated with backend developers for seamless data integration.
- Worked with the testing team to ensure application reliability.

**React-Presentation** - A university lecture for core concepts of React built with React and Tailwind

- Created an interactive and visually engaging presentation website.
- Showcased key features and benefits of React.
- Provided real-world examples of how to use React.

**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.

**Satellite Cloud Masking** – Deep Learning-based Cloud Detection from Satellite Imagery

- Implemented a modified U-Net architecture with SqueezeNet-inspired Fire modules for cloud segmentation.
- Handled a dataset of 10,573 TIFF satellite images with 4 spectral bands and binary cloud masks.
- Achieved a Dice coefficient of 0.8562 on validation and 0.8473 on test set.
- Optimized model training with early stopping, dropout regularization, and SGD optimizer on Kaggle GPUs.

**Almost Google** - A search engine

- Implemented phrase search, enhancing search accuracy by allowing users to search for specific phrases.
- Successfully crawled and indexed 6000+ web pages.
- Ensured a user-friendly interface for Almost Google.

**On the Go** - A stunning restaurant management system built with React, PostgreSQL, Express, and Figma

- Implemented an intuitive UI for customers, employees, and admins.
- Enabled customers to order food and drinks, view their history, change passwords, and reserve tables.
- Empowered admins to add dishes, drinks, and discounts, as well as manage employee information.