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Mohab Abd El-Dayem

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Experience

Backend Engineer   **Fatura**   **Oct 2022 – Present**

- Developed APIs using Node.js for B2B marketplace apps in the FMCG and electricity supply chain sectors with a customer-centric mindset.
- Implemented gamification features (e.g., targets, cashback), finance tools (e.g., commission module), and user experience enhancements (e.g., rerouting rejected receipts) using RabbitMQ and Redis.
- Revamped legacy features like promocodes and ads to align with new business requirements.
- Engineered internal portal APIs for operations and finance teams, facilitating goal achievement.
- Integrated with third-party services such as WebEngage and POS systems for wholesalers.
- Established automation testing environment using Docker and Docker Compose for QC team.
- Actively engaged in code reviews, testing, and debugging processes to ensure system reliability.
- Contributed to knowledge sharing and mentored new developers, fostering continuous learning.
- Maintained production environment through rotational on-call shifts, resolving issues and bugs promptly.

Backend Engineer   **Vision Media**   **Aug 2021 – Oct 2022**

- Designed and implemented the Backend and RESTful APIs in app called U100 (a job matching application that matches jobs posted by factories with workers) using Django rest framework.
- Designed and maintained Database schema and Database migrations.

Backend Engineer, Intern   **ArqamFC (Acquired by Statsbomb)**   **Oct 2019 – Dec 2019**

- Developed some backend services using flask (a python framework) in a microservices environment.
- Learned to work with Docker and Docker-compose.
- Learned to work in a clean environment like using git pre-hooks (to lint, and test the code before committing).
- Refactored some services using go and python.

Game Developer, Intern   **Rumbling Games Studio**   **Jul 2019 to Aug 2019**

- Worked on a game titled "Knights of Light" as a C++ Developer using unreal game engine as my role was to convert the prototyped code that was made by blueprint (visual scripting language) to C++ to have a production performance.

Game Developer, Intern   **Appsinnovate**   **Jul 2018 – Sep 2018**

- Worked on a mobile game using unity game engine.

Modern Back-end Architecture Training   **Swvl**   **Jul 2018 – Jul 2018**

- A back-end training from Swvl with Nodejs, MongoDB, Docker and discussing some concepts like scalability.

Technical Experience

Languages and Technologies

- Javascript, Nodejs, Golang, Python, C++, C#, SQL, glsl
- Git, Docker, MongoDB, Mysql, PostgreSQL, RabbitMq, Redis, Swagger, OpenGL
- Expressjs, Flask, Fiber, Django, Objectionjs, Knex, Sequelize, GORM, SQLAlchemy, Mongoose, Numpy, Pandas

Projects

- **crafty-shop** An e-commerce website Rest APIs individual side-project with CRUD operations, OAuth 2 jwt authentication and authorization, unit testing, And Swagger documentation that handcraft sellers can sell their products on.
  Using: Nodejs, PostgreSQL, Expressjs, Sequelize , Docker, Docker-compose

- **TextBlob-Ar** An official extension for the famous NLP package TextBlob as we added an Arabic support by implementing features like (sentiment analysis, spelling correction, POS tagging, and text similarity) and it was our graduation project.
  Using: Nodejs, Python, NLTK
- **BtatesCraft** A Minecraft clone made with Opengl with a lot of optimization in the memory to store the metadata of each block (like block type and position) and in the rendering part too as I used instancing to render all the blocks.
  Using: C++, OpenGL, glsl
- **Operating System** Implementing memory management part and cpu scheduling part in unix-style OS using algorithms like Multilevel Feedback Queue.
  Using: C

Education

Cairo, Egypt	Ain Shams University	Jul 2019

- B.S.E. in Computer Science with Mathematical computing major, Jul 2019.
- **Coursework:** Parallel processing, Algorithms, Data structures, OOP, Design patterns, Computational geometry, Mathematical programming, Operating Systems, Database, Signal Processing, Image Processing.

Military Service Status

Completed	Apr 2020 – Jun 2021

Additional Experience and Awards

- **Game dev vice head in OSC (Jul 2018 – Jul 2019)**
- **Fundraising vice head in OSC (Jul 2017 - Jul 2018)**
- **Volunteer at Resala charity (Oct 2011 – Sep 2012)**
- **Algorithm project 1 place:** a bin packing problem as it required to group set of sounds records into separate folders based on time duration using allocation strategies (worst fit, first fit) or folder filling algorithm (dynamic programing).

Languages

- **Arabic** mother tongue
- **English** very good