ASHRAF GEHAD YEHIA

Full Stack Software Engineer

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- Full-Stack Web Developer with +2 years of hands-on experience using Python and JavaScript to build, design, and secure web applications.
- Proven ability in creating, documenting, and testing node.js REST APIs. Built different projects based on TDD and API-Design first approaches.
- I have some experience with web application penetration testing and have been inducted into many companies' halls of fame for security researchers, including Intel, Ford, and Ikea.

EDUCATION

BS in Computer Science, Software Engineering Major.   **2017-2021**
Kafr El Sheikh University

SKILLS

• **Programming Languages:**
  Decent: • JavaScript   • Python   • Shell   • SQL
  Fair: • C#   • PHP   • Typescript
• **Computer Science:** • OOP   • Data Structure   • Algorithms   • Design Patterns   • Architecture design.
• **Back-End:**   • Node.js   • PHP
• **Front-End:**   • HTML   • CSS   • React.js   • Bootstrap   • Tailwind
• **Databases:**
  SQL: • PostgreSQL   • MySQL
  No-SQL: • MongoDB   • Redis   • GraphQL (Fair)
• **Tools & Technologies:**   • REST API   • Socket.io   • Test Driven Development (TDD)   • Unit Testing
                         • OpenAPI & Swagger   • Git & GitHub

Professional Experience

Ticketing, An Event Driven Microservices Project

https://github.com/3r3bu5/ticketingapp-microservices

It is an Event-Driven microservices web application that handles ticket purchasing, written in Kubernetes, Skaffold, Nginx Ingress, NextJS, Node, Express, and Typescript. The app allows users to sign up, create tickets that other users can put on hold for a limited time, and then purchase after paying for them.

- Built 6 microservices which communicate and send events between each other .
- Implemented an event bus to communicate events from one service to another.
- Wrote unit tests to ensure that every service works as designed.
- Deployed the app to the cloud (GCP) to provide scaling capabilities to the app.
- Used continuous integration (CI) and continuous delivery (CD) to ensure an ongoing flow of new features and bug fixes.
- Integrated Server Side Rendering using next.js for faster load time and better browser indexing.
- Adapted Kubernetes to facilitate the automation of deployment and scalability.

Glaucoma Detection , A Machine Learning As A Service Project

https://github.com/3r3bu5/Glaucoma-detection-backend

It is a MLAAS app that helps doctors discover and diagnose if a patient has glaucoma, even if it is in the early stages, with **98.61%** accuracy. The app has three clients (Web, iOS, and Android) that consume one centralized API. It is a pay-as-you-go app, so we charge users for the number of scans they do.

- Designed the architecture of the app, including which tech stack to use, how to handle uploading images to be scanned, how to integrate the ML itself with the API, and the communication between the API and the clients.
- Developed the back-end side of the project, including Auth, payment, and validation.
- Implemented rate limiting on the API endpoints to prevent the overuse of the API by allowing users to make a certain number of requests within a given time frame.
- Handled the image uploading functionality to the cloud using AWS S3 cluster.
- Scaled the model server horizontally to handle more traffic from the API.
- Integrated a simple software load balancer to distribute network traffic across the ML servers.
- Built a logging and auditing subsystem that records every action done by users to ensure patients' data integrity.

IssueBus, Issue Tracker Project
  https://github.com/3r3bu5/IssueBus
IssueBus is a web application based on a REST API that records issues customers/developers have experienced with a software product, and it enables support, engineers, and managers to track/assign those problems until they have been successfully resolved by the developers.

• Did the full system analysis and requirements gathering, adopted the design-first approach, and documented the
   API using OpenAPI and Swagger.
• Implemented local authentication and authorization systems to identify users and their authority to access
   endpoints, take certain actions, or visit specific routes.
• Implemented login via Oath applications (GitHub, Facebook).
• Implemented validation on all endpoints to ensure the accuracy of the data being sent to the back-end and database.
• Implemented upload functionality to AWS instance to handle uploading attachments and files to the server.
   Secured upload function to restrict users from uploading files with certain extensions.

Attendance Tracking Management System Project
https://github.com/3r3bu5/Attendance-Tracking-Management-System
The attendance tracking management system is an MVC web application that is part of an HR system and allows the admins to track the attendance and leaving of the employees, track their availability during the day, and manage their profiles.

• Did the full system analysis and requirements gathering, adopted the design-first approach, and documented the
   API using OpenAPI and Swagger.
• Implemented authentication and authorization systems to identify users and their authority to access endpoints,
  take certain actions, or visit specific routes.
• Implemented validation on all endpoints to ensure the accuracy of the data being sent to the back-end and database.
• Created a cron job to automatically take the absence of users at the end of the workday.   configured the
  application to be dynamic, so any corporation can configure it based on its settings (work shifts, allowance minutes,
  end of the workday hour, etc.).

Community Involvement

Head of CyberTalents KFS | *CyberTalents*   **2018 - 2020**
CyberTalents hosts Egypt's universities' Capture the Flag Competition. I represented the company at my university. I handled organizing CTF competitions at the university, as well as sessions and talks for students.
• certificate for being one of the best ambassadors in 2019..

IEEE KFS Back-end Member | *IEEE*   **2019 - 2020**
I was an active member of the back-end development team.

Additional Information

Languages:
          • **English   :**Intermediate.
          • **Germany :**Elementary.
Military Service: Completed.