Mahmoud Zaky Fetoh

Personal Data

NAME: Mahmoud Zaky Fetoh
ADDRESS: Tanta
github.com/zaky-fetoh

PHONE: +201022381474
EMAIL: zaky.fetoh@gmail.com
linkedin.com/in/mahmoud-zaky-fetoh

Objective

I am a junior MERN stack engineer passionate about solving a real-world problem, working and collaborate with a great Engineers that I can learn from. I have strong knowledge of algorithms and writing efficient and high performing code.

Education

2020-Present	**Faculty of Computers and Information, Menoufia university**, Egypt. M.Sc., doing computer vision research, Expected graduation 2023
2015-2019	**Faculty of Computers and Information, Menoufia university**, Egypt. B.Sc. Honors, I graduated with the Top, 1st, Grade, Excellent with honor GPA 3.5.

Work Experience

2020-Present	**Demonstrator** **Faculty of Computers and Information, Menoufia university**. Teaching Deep Learning, Computer Vision Courses and Speech recognition.

Frameworks & Technical Skills

Languages:	Python, NodeJS, GoLang(learning)
Programming Paradigms:	Object-oriented programming (OOP) and Functional Programming (FP).
HTTP Servers Frameworks:	ExpressJS, Flask.
Front-End Frameworks :	ReactJS, and Angular(learning).
Version Control Tools:	Git, Github.
Client API:	REST, GraphQL, gRPC,and SocketIO
Databases:	MONGODB, MySQL.
Deep Learning:	PyTorch, Numpy, Pandas, OpenCV.
Message Broker:	RabbitMQ.
Security Utilities:	Joi, Jsonwebtoken (JWT).
Containerization Technology:	Docker, Docker-Compose.
Caching:	Redis.
Testing:	Jest.

Project Experience

2023 **Personal Blog Site**, [Link].

- *built with:* NodeJS, ExpressJS, ReactJS, Crypto, Redis, MongoDB, Redux-toolkit, formik, and yup.

2022 **Image Manager**, [Link].
Microservices application for image storage, stored in plain form or encrypted form, with it's meta data and automatic tagging using Deep learning techniques.
It consists of three microservices as follow:

- **Image-Classification micro-service:** This micro-service is responsible for classifying images using ResNet18 other services can communicate with it using synchronous communication using by requesting it RESTfull API or through asynchronous communication using RabbitMQ.
  - *built with:* Python, Pytorch, Flask, and pika.
- **Image-Storage micro-service:** This micro-service is responsible for storing the images the users in either plain or encrypted, using AES, form other microservices can communicate with it using it's RESTfull API.
  - *built with:* NodeJS, Express, Multer, and crypto.
- **Image-manager micro-service:** This micro-service is responsible for 1) storing the meta-data, such as Image's owner and the image Tags, automatically added by Image Classification micro-service, and the total number of views, 2) manage users, users credentials and authentication 3) communicate with Image-Classification microservice using RabbitMQ and With Image-Storage through it's RESTfull API.
  - *built with:* NodeJS, Express, Mongoose, JWT, bcrypt, amqplib, and Joi.

2022 **Clinic Management System**, [Link].
A backend System for managing clinics, it's department, medical stuff, and patients. This System provides a RESTfull, and GraphQL for clients. Complex mongodb aggregation pipeline is implemented for extracting high level info.

- *built with:* NodeJS, Express, Mongoose, graphql, and Joi.

2022 **Notification Server**, [Link].
Periodically send a scheduled Notification using scheduled using CronJob.