Mahmoud Zaky Fetoh

Phone: +201022381474
Email: zaky.fetoh@gmail.com
github.com/zaky-fetoh
linkedin.com/in/mahmoud-zaky-fetoh

Objective

I am a software Engineer passionate about solving a real-world problem, working and collaborate with a great Engineers that I can learn from. I have mixed experience across various discipline such as full stack development, data Science, computer vision and mainly devops Engineer.

Education

2021 - 2023 | **Faculty of Computers and Information, Menoufia university**, Egypt.
M.Sc., doing computer vision research using deep learning, Graduated 2023

2015 - 2019 | **Faculty of Computers and Information, Menoufia university**, Egypt.
B.Sc. Honors, I graduated with the Top, 1st, Grade on my class, Excellent with honor GPA 3.5.

Professional Certificates.
AWS Certified Solutions Architect - Associate [Link]
AWS Certified Machine Learning - Specialty [Link]

Work Experience

Dec 2023 - Present | **ML Cloud Consultant** @ **Bexprt**, KSA.
Involved at architecting and implementing MLOps and DevOps projects for MENA customers.
-*Technologies*:
IaC: Terraform.
Clould Provider: AWS, Cloudflare.
CI/CD: Github Actions, Atlantis, Terraform Cloud.
ETL: AWS Glue Crawler, Glue Database, Glue Job, S3, Firehose.
MLOps: SageMaker, bentoml, Prefect, MLflow, DVC.
Micro-frontend: Cloudfront, S3, Route53.
Monitoring: DataDog, NewRelic.
Container Orchestrators: ECS.

May 2023 - Dec 2023 | **DevOps Engineer** @ **n-go**, KSA.
Administrating kubernetes clusters for 1M user Application.
-*Technologies*:
Clould Provider: AWS, OCI, Cloudflare.
Container Orchestrators: EKS, OKE.
CI/CD: Jenkins, GitHub actions, ArgoCD.
kubernetes Autoscaler: Cluster Autoscaler, karpenter.
Monitoring: Prometheus, Grafana, Loki, ELK, Kiali, Jaeger.
IaC: Terraform, Kustomize, Helm, Ansible.
VPN & ZTN: Pritunl, Twingate.
Service Mesh: Istio.

Jan 2023 - Apr 2023 | **MLops Engineer** @ **Susoft**, Norway.
Building microservice application for Training and deploying machine and deep learning models for Sales forecasting. Performing customer segmentation to direct marketing campaigns.
-*Technologies*:
Model Training: PyTorchForecasting, Pytorch, pandas, Prophet, NeuralProphet.
Model Monitoring: Weight and biases, Prometheus, Grafana.
Model Serving: torchScript, Docker, K8s.
Model Registry: Minio.
Asynchronous communication for issuing train request is done using RabbitMQ Gateway and load balancing services performed using NodeJS.

Jan 2021 - Jan 2022	**Teaching & Research Assistant** @ **Menoufiya University**, Egypt. Teaching machine Learning and Computer vision Courses .

Frameworks & Technical Skills

Programming Languages:	Python, NodeJS, GoLang (learning)
HTTP Servers Frameworks:	ExpressJS, Flask.
Version Control Tools:	Git, Github, Bitbucket.
Data Science:	PyTorch, Pandas, statsmodels, Prophet, Numpy, OpenCV, Plotly, LLAMA 2, PaddleOCR.
MLOps:	SageMaker, Prefect, bentoml, Mlflow, Hydra, DVC.
Client API:	REST, GraphQL, gRPC, SocketIO.
Security Utilities:	Joi, Jsonwebtoken (JWT), OAuth 2.0.
Databases:	MONGODB, MySQL, PostgreSQL, MariaDB.
Adminstration:	CCNA, MCSA, RHCSA, Kubernetes,
Clould Provider:	AWS, OCI, Cloudflare.
Monitoring:	Prometheus, Grafana, Loki, ELK, kiali, jaeger, DataDog, NewRelic.
Container Orchestrators:	EKS, OKE, ECS, Docker-Compose.
Infrastucture as Code :	Terraform, Kustomize, Helm, Ansible.
CI/CD:	Atlantis, Terraform Cloud, Jenkins, Github Actions, ArgoCD.
VPN & ZTN:	Pritunl, Twingate, Cloudflare Warp.
Message Broker:	RabbitMQ, Kafka.
Documentation:	Swagger, LaTeX.
Caching:	Redis, MinIO.

Publications

2022 **Multiscale aware classification of COVID-19 from Chest X-Ray using a spatially weighted atrous spatial pyramid pooling CNN** [Link].
Mahmoud Z fetoh, Khalid M. Amin, Ahmed M. Hamad
In this paper I propose, scale invariant CNN architecture for COVID-19 classification. Proposed model based on building a scale space in each layer using Atrous spatial pyramid pooling then selecting a correct space to operate at using spatial attention module.

2021 **COVID-19 Detection Based on Chest X-Ray Image Classification using Tailored CNN Model**, [Link]. **Mahmoud Z fetoh**, Khalid M. Amin, Ahmed M. Hamad
In this paper I propose a very light-weight model as a consequence of using spatial separable kernel and depth-wise separable kernels for COVID-19 classification.
Published at: IJCI.