

Mark Rofail

Software Development Engineer

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github/markrofail

EXPERIENCE

SOFTWARE DEVELOPMENT ENGINEER II

Amazon, London, UK

November 2022 – Present

- Led the ads support project for primevideo.com, working with UX to implement the frontend and coordinating with different backend services.
- Contributed to a successful transition from AWS EC2 to AWS Fargate, resulting in a 22.7% increase in platform efficiency.
- Identified and fixed potential memory leaks by architecting an automated chaos-testing workflow.
- Enhanced video-on-demand traffic insights through improved diagnostic tools, reducing root-cause time for on-call engineers, by 10.4%.

SOFTWARE DEVELOPMENT ENGINEER II

GoCardless, London, UK

October 2021 – October 2022

- Led a team in integrating open-banking services to build fraud protection product.
- Slashed fraudulent transactions by 15% through cross-team collaboration, implementing machine learning models.
- Led the creation of an intuitive Payment Intelligence dashboard, elevating user engagement by 30%.

JUNIOR BACKEND ENGINEER

Shahry, Cairo, EG

July 2020 – September 2021

- Strengthened application security through a seamless migration to Knox tokens without any logout incidents.
- Launched in-store POS payment solutions by collaborating with a third-party provider in three external merchant chains.
- Developed a microservice for third-party integrations, interfacing with the monolithic service through RabbitMQ.

JUNIOR SOFTWARE ENGINEER

Informatica Middle East, Alexandria, EG

June 2019 – June 2020

EDUCATION

GERMAN UNIVERSITY IN CAIRO

BSC. COMPUTER SCIENCE AND ENGINEERING

September 2014 - June 2019 | Cairo, EG

GPA: 3.9 / 4.0 | Highest Honors

SKILLS

Programming Java • Typescript • Python

Frameworks Spring • React • Django

Testing Mocha • Jest • Pytest • Cypress

Database PostgreSQL • DynamoDB

PROJECTS & PUBLICATIONS

ICVES PUBLICATION

Multi-Modal Vehicle Attack Detection

Technology Tensorflow / Python

- Simulated camera-based attacks by manipulating the camera input of an Autonomous Vehicle.
- Ideated and developed a multi-modal module to identify alterations in the image sensor by cross-checking its congruence with the LiDAR sensor.

GOOGLE SUMMER OF CODE

PostgreSQL Contributor

Technology C / C++

- Enabled GIN index-scan between AnyArray-AnyElement types by adding new polymorphic operators.
- Optimized query performance from 25ms to 2ms using a GIN index, compared to the original patch.

LEADERSHIP & AWARDS

PROGRAMMING WORKSHOPS

FACILITATOR ,2022

Conducted bi-weekly Ruby coding challenge sessions for new hires.

GOOGLE SUMMER OF CODE

MENTOR ,2021

Mentored student throughout their PostgreSQL project.

BACHELOR PROJECT SUPERVISOR

,2021

Supervised three undergraduate students in their bachelor projects.

ICVES BEST PAPER AWARD ,2019

Chosen as the top paper among 54 submissions.