

Mark Rofail

Software Development Engineer

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github/markrofail

EXPERIENCE

SOFTWARE DEVELOPMENT ENGINEER II

Amazon, London, UK

November 2022 – Present

- 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

- Enhanced a bank's customer dashboard search functionality by implementing a bilingual search capability for an Arabic-English database.
- Achieved a 4x improvement in pipeline performance by compressing monthly E-statements post-generation.

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.