# Mark Rofail

• London, UK

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# Experience

## **Software Development Engineer II**

Amazon

November 2022 - Present | London, UK

- Achieved a 15% increase in ad engagement rates by leading the primevideo.com Ads project, orchestrating feature flag-driven changes across 50+ microservices, and collaborating with cross-functional teams to enhance customer experience.
- Boosted user satisfaction scores by 21% by directing the redesign of the primevideo.com detail page, working closely with product managers, UX designers, and engineers to implement data-informed improvements.
- Improved system stability by 30% by architecting an automated chaos-testing workflow to identify and resolve memory leaks in distributed systems, enhancing the resilience of services.
- Maintained 99.99% website uptime by actively participating in on-call rotations, providing critical support for primevideo.com and ensuring high availability of services.

## **Software Development Engineer II**

GoCardless

October 2021 - October 2022 | London, UK

- Reduced fraudulent payments by 23% by leading the development of a fraud prevention tool for merchants, integrating open-banking services and machine learning, and collaborating with data analysts and product managers.
- Increased fraud detection accuracy by 27% by implementing a machine-learning server to monitor direct-debit transactions, enhancing system resilience against fraudulent activities.
- Enhanced merchant satisfaction scores by 31% by engineering a payment intelligence dashboard, empowering merchants to customize fraud checks based on data insights, balancing customer experience and fraud protection.

# **Software Development Engineer**

Shahrv

July 2020 - September 2021 | Cairo, EG

 Reduced monolith deployments by 40% by developing a specialized microservice for third-party integrations, streamlining vendor-specific changes and improving deployment efficiency.

## **Software Development Engineer**

Informatica Middle East June 2019 – June 2020 | Alexandria, EG

## Education

#### **BSc. Computer Science**

German University in Cairo September 2014 - June 2019 | Cairo, EG GPA: 3.9 / 4.0 | Highest Honors

## Skills

Programming Python, Ruby, Typescript, Java
Frameworks Django, FastAPI, Rails, React
Pytest, Jest, Selenium, Cypress
Database PostgreSQL, MongoDB
DevOps Docker, AWS, Kubernetes

# **Projects & Publications**

#### **ICVES Publication**

Multi-Modal Vehicle Attack Detection 

✓
Technologies: Tensorflow, Python

- Simulated camera-based attacks by manipulating the vehicle's camera feed.
- Manufactured a multi-modal module to identify discrepancies between the vehicle's image and LiDAR sensors.

#### **Google Summer of Code**

PostgreSQL Contributor 

Technologies: C, C++

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

# Leadership & Awards

**Coding Workshops** - 2022

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

Google GSOC Mentor - 2021

Mentored student throughout their PostgreSQL project.

**Bachelor Project Supervisor** - 2021

Supervised three undergraduate students in their bachelor projects.

Hacktoberfest Award - 2020

Successfully made for open-source contributions during October.

**ICVES Best Paper Award** - 2019

Selected as the best paper out of 54 submissions.