MOHAMED ASHOUR

Senior Software Engineer

m.aly.ashour@gmail.com • (+352) 691136420 • blog.m-ashour.space • Luxembourg - Luxembourg

Senior Software Engineer with **7+ years of progressive experience** in **real-time data processing**, **machine learning**, and **cloud technologies**. Proven success in **building scalable systems**, reducing costs by significant margins, and leading cross-functional teams to deliver high-impact solutions. Adept in **Python**, **Golang**, and **AWS**, with strong knowledge of data structures, algorithms, and **DevOps** practices. Seeking to leverage expertise in delivering robust, maintainable software architectures to drive innovation and efficiency.

EXPERIENCE

Software Engineer, Spire Global   **Jan 2022 – Present**

- Developed **real-time data processing** and delivery systems for GNSS-R/RO satellite data with **strict latency requirements**, servicing customers such as NASA, NOAA, and EUMETSAT.
- Led an **ML-based sea ice detection** project, collaborating with scientists from concept to **production deployment**.
- Implemented cost optimization strategies, **reducing AWS expenses by $250K annually**.
- Employed **CI/CD pipelines** (Jenkins) and **Infrastructure as Code** (Terraform) to ensure scalable and reliable product releases.
  Technologies: Python, Go, AWS, Docker, Postgres, Terraform, DynamoDB, Jenkins

Software Engineer, Yaoota   **Oct 2020 – Dec 2021**

- Maintained data pipelines and developed core systems for internet product scraping, feature extraction, data analysis, and ML solutions.
- Worked on projects like Kipp (the main scraper for Yaoota) and Case (an internal NLP library).
- Switched hats between Software Engineer and Machine Learning Engineer to create ML solutions that enhanced data utilization, providing end-users with comprehensive product information from all verified stores in their region along with product history.

- Worked on key projects:

- Kipp: Main scraper for Yaoota, collecting product data across the internet.
- Case: Internal NLP library for data processing.
Technologies: Python, Git, NLP, Redis, Docker

Software Specialized Officer , Egypt Air Forces   **Oct 2018 – Oct 2020**

- Developing and maintaining software systems for many departments across the Air Forces Using Technologies like C# and Oracle databases
Technologies: C#, Oracle Database

Software Engineer, Elements Financial Technologies   **Aug 2017 – Mar 2018**

- Developing a Payment Gateway as a service for providing online payments for small/mid-level/big businesses
  Technologies: Nodejs, MongoDB, Docker, AWS

Freelance Python Developer   **Jan 2017 – Mar 2020**

- Created data scraping scripts and machine learning models.
  Technologies: Python, Selenium, sklearn

Intern Software Engineer, Codescalers - Egypt   **Jul 2016 – Sept 2016**

- Developed internal dashboards for monitoring cloud servers.
  Technologies: Python, Flask

EDUCATION

B.Sc. Computer & Systems Engineering, Mansoura University, Egypt   **2012 – 2017**

SKILLS

- **Languages:** Python, Go, JavaScript, SQL
- **Currently Learning:** Rust

- **Concepts:** Machine Learning, Neural Networks, OOP, Algorithms & Data Structures, APIs, Test-Driven Development, Microservices
- **Tools & Technologies:** Flask, MongoDB, GIT, Docker, Tensorflow, Keras, PyTorch, Numpy, Matplotlib, Scrapy, Redis, NLTK, Scikit-learn, AWS, Terraform, Postgres, DynamoDB

ADDITIONAL INFORMATION

- **Blog:** Sharing insights on software engineering and machine learning at blog.m-ashour.space
- **Interests:** Continuous learning, contributing to open-source projects, community mentorship
- **Youtube:** Sharing engineering educational content @ https://www.youtube.com/@mohammedashour1994/