



"Nothing is out of reach, as long as you just sit down and take the time to read from the beginning." - Life lesson.

Summary

I specialize in building high-accuracy models using TensorFlow, PyTorch, and OpenCV, while optimizing cloud infrastructures like GCP to reduce costs and enhance performance. With a proven track record of delivering innovative solutions in real-world applications, I excel at transforming technical challenges into scalable, high-performance systems. **I am eager to bring my know-how in ML and Cloud integration to drive impactful results for your team.**

Experience and Projects

SERMA Safety and Security - SERMA GROUP

Rennes, France

MACHINE LEARNING ENGINEER INTERN

Feb. 2024 - Aug. 2024

- Developed a Printed Circuit Board component recognizer using YOLO, OCR and Fuzzy Matching, **reducing component misidentification by 35%** and enhancing data retrieval accuracy.
- Designed and implemented fully automated CI/CD pipelines with gitlabCI and MLFlow.
- Reduced overall time spent by hardware pentesters on security assessments BY 25%.**
- Developed a POC on the usage of Graph RAG with local documents and Selfhost Llama3 and Noe4J.

Tech Stack: Yolo, OpenCV, OCR, RAG/GraphRAG, LLM, Pytorch, Kubernetes, Docker, Ansible, Python, GitLab.

IMT Atlantique - Research

Rennes, France

DATA ANALYST INTERN

May 2023 - Sep 2023

- Identified key factors affecting energy consumption in Cellular Networking and developed targeted strategies to address them.
- Overcame challenges in data collection and quality by automating data cleaning techniques, reducing data processing time by +90%
- Collaborated with network engineers to implement energy-saving strategies based on data analysis, streamlining data-sharing processes.
- Applied the approach to real traffic load data in Rennes, **saving up to 20% of energy.**

Tech Stack: 5G, PowerBI, Pandas, Python, GitLab, Matplotlib, scikit-learn.

Personal Projects

Rennes, France

SYSTEM ARCHITECTURE AND SCHOOL PROJECT

2022 - Present

- Led a team of 13 in designing and deploying the SuperApp azplus.mg, ensuring seamless migration to GCP/Microservices.
- Developed a Euro coin recognizer using OpenCV and YOLO for mobile devices for my girlfriend's coin collection

Tech Stack: GCP, AWS, Kubernetes, Minio, Elasticsearch, Yolo, OpenCV, Python, Docker, SQL, JAVA.

Videotron Inc.

Cairo, Egypt

JUNIOR DATA ANALYST

2020 - 2022

- Developed data-driven strategies that **increased customer satisfaction from 80% to 95%** over a 1 year period
- Conducted agent performance analysis, resulting in a 20% improvement in KPI achievements and identifying training needs.
- Utilized SQL, Excel, and PowerBI to analyze call data and generate actionable insights which enhanced Decision Making.

Education

University of Rennes & EIT Digital Master School

Rennes, France

M.SC IN CLOUD AND NETWORK INFRASTRUCTURE, MINOR: INNOVATION AND ENTREPRENEURSHIP

Sept. 2022 - Aug. 2024

- Specialized in smart city services, big data, distributed systems, advanced cloud infrastructure, and fog computing.
- Grade: Good.

Faculty of Computers and AI - Cairo University

Cairo, Egypt

B.Sc. IN ARTIFICIAL INTELLIGENCE, MINOR: INFORMATION SYSTEMS

Sep. 2016 - Aug. 2020

- Grade: Very Good.
- Secured a mixed Egyptian and Malagasy Government Scholarship for outstanding grades.

Extracurricular Activities and Interests

ELTE University, Informatics Faculty

Budapest, Hungary

SUMMER CLASS WITH ERASMUS+ (SCHOLARSHIP)

Jun. 2023 - 2 Weeks

- Showcased engineering background through an innovative project (V2V Grids) and delivered an engaging pitch.
- Grade: Excellent.

Core Values: Leadership, teamwork, pitching, innovation, technology watch, project management.

SKILLS AND INTERESTS

- Tech Skills: Advanced proficiency in YOLO, OpenCV, Kubernetes, and Pytorch. Experienced with GCP, Azure ML, and data visualization using Plotly
- Soft Skills: Leadership, teamwork, commitment, problem-solving, documentation, engaging presentation, article writing.
- Certificates: Deep Learning with Pytorch, ML Pipeline with Azure ML, Data Visualization using Plotly.
- Languages: English (C1 - IELTS: 7.5), French (C1), Malagasy (Native).