

HASSAN ISMAIL FAWAZ

Senior Machine Learning Engineer | PhD in Artificial Intelligence

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Paris, France

hfawaz

hfawaz.github.io

publications

EXPERIENCES

Senior Machine Learning Engineer

Ericsson

May 2022 – Present

Paris, France

- **Tech lead** for in-house research project on **transfer learning** for Time Series Classification (TSC)
 - Code review & **mentoring** of PhD students while setting up **best practices** for performing **ML experiments**
 - Implement state of the art deep learning models while **scaling up experiments** on a **Kubernetes cluster**
 - Defining research project **roadmap**, team responsibilities & lead a monthly **reading group** on Artificial Intelligence
- Software developer: wrapping an anomaly detection algorithm with a microservice
 - Follow **software engineering** best practices, code review, unit & integration tests, CI/CD
 - Multiprocessing in **Python** for vertical scaling with Kafka based communication

Machine Learning Engineer

Besedo

Oct 2020 – April 2022

Paris, France

- Content moderation using Machine Learning: **Computer Vision** and **Natural Language Processing** (NLP)
 - Create internal **benchmarks** of latest state-of-the-art (Sota) models using private client data
 - **Guide & mentor** junior data scientists and linguistics (interns as well as fresh graduates)
 - Develop **microservices** for ML inference & **reduce latency** using quantization, pruning, JIT & tensorRT
 - **Monitor** model performance and decay (concept & data **drift**, covariate & label **shift**)
 - **Orchestrate** and automate model training using Airflow (migrating from CronJobs)
 - Contribute to **HuggingFace**'s open source datasets library by adding various NLP datasets ([link](#))
 - Deliver **proof-of-concepts** for various SOTA models using Streamlit

Software Developer Intern

Orange Labs

March 2017 – September 2017

Nice, France

Java recommendation system based on RDF triplet data

DATA SCIENCE SKILLS

Computer Vision, NLP & Time Series
Pytorch, Scikit-learn, Pandas & HuggingFace
Hydra, Tensorboard & Data Version Control
Linear Algebra, Geometry & Probability
Writing, Presenting & Knowledge Sharing

EDUCATION

Université Haute-Alsace

PhD in Machine Learning

Sep 2017 – Sep 2020

Mulhouse, France

- Advance the state-of-the-art on Deep Learning for **Time Series Classification** (TSC) ([link](#))
- Contribute to **Keras.io** with a tutorial on Convolutional Neural Networks for TSC ([link](#))
- Open sourcing the **dl-4-tsc** project with **1k+** GitHub stars ([link](#))
- Publishing in top conferences and journals while reaching **#1** of all time in DMKD ([link](#))
- Student travel **award** for **IEEE Big Data** 2018 conference at Seattle ([link](#))
- **International** collaborations: Monash University (AUS), Alan Turing Institute (UK), The Open University (NL)
- **Deep learning** course for masters students at ENSISA engineering school

Université de Bourgogne

Masters in Databases

Sep 2016 – Sep 2017

Dijon, France

- SQL, NoSQL, Graph, Constraints Programming
- Data Mining, Machine Learning, Semantic Web

Université Antonine

Masters in Software Engineering

Sep 2011 – Sep 2016

Dijon, France

- JAVA, C#, Multi-threading, Web Services
- Networking, CCNA Routers & Switches

DEV SKILLS

Object Oriented Programming
Software Design Patterns
Algorithms & Data Structures
Debugging & Python Profiling
Python, SQL, NoSQL
Time & Memory Complexity
Agile Development
MapReduce, Java, C++

OPS SKILLS

Git, Code Review, Unit Tests
Docker, Kubernetes
GitLab CI/CD Pipeline
High Perf. Computing (HPC)
Amazon Web Services (AWS)
REST, gRPC, Message Brokers