ABDALLA Farid

Machine Learning Engineer

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- Swiss

Skills

Machine Learning

Scikit-Learn, Pandas, Numpy, Seaborn, Matplotlib, Ray Tune, SQL, Optuna, NLP (Spacy), Computer Vision

Deep Learning

Tensorflow, Keras, PyTorch, Huggingface

Reinforcement Learning

Ray RLlib, Stable-baselines, Unity ML-Agents

Software Engineering

Git, Docker, Kubernetes, AWS, Linux, Design Patterns, Project Management, Prototyping, Testing, CI/CD

Languages & Frameworks

Python, C#, C++ (CUDA, Qt), Java (Android), Web (Django, Flask), LaTeX

Languages

French native	English C1
Japanese JLPT N2	German A2

Interests

Fitness   Escape Games   Japan

Strengths

Hard-working
Learned Japanese by myself alongside my studies and aced the JLPT N2 exam as well as achieving the best GPA of my promotion

Curiosity
Reimplemented my Master thesis in PyTorch in order to learn the differences with Tensorflow and get hands on experience with this framework

Summary

With almost 3 years of professional experience developing machine learning models and more than 8 years of strong academic background in software engineering, I am dedicated to achieving excellence in ML projects and committed to driving innovation and creating impactful solutions.

Work Experience

HE-Arc (09/2020 – Present)

Research Assistant in Data Science — Neuchâtel, Switzerland

- Designed, built, evaluated and deployed multiple machine learning, deep learning and reinforcement learning models with technologies such as Scikit-learn, PyTorch, TensorFlow, and Ray RLlib
- Worked with various data sources, such as time series, images, videos and natural language data, to create effective data-driven solutions.
- Cleaned and preprocessed data to ensure accuracy, consistency, and developed robust data pipelines to streamline data processing and analysis
- Collaborated with cross-functional teams to develop AI solutions and integrate machine learning models into real world applications.

Education

Osaka Metropolitan University (04/2022 – 09/2022)

Master Thesis — Osaka, Japan

Grade: 6.0 / 6.0

HES-SO Master (09/2019 – 09/2020)

Master of Science – Data Science — Lausanne, Switzerland

GPA: 5.5 / 6.0

HE-Arc (09/2016 – 09/2019)

Bachelor of Science – Software Engineering — Neuchâtel, Switzerland

GPA: 5.6 / 6.0

Award: Best GPA

Projects

GANime — **Tensorflow / PyTorch**

Combined an image generation model (VQ-GAN) with a GPT2 transformer to generate video of anime content conditioned on two frames

SOON-RL — **Ray RLlib / Unity ML-Agents**

Applied reinforcement learning techniques in a multi-agent scenario to optimize workshop production and respond to machine failures

PPI-Doppelganger — **Tensorflow**

Developed an explainable deep learning model to assist traders in making decisions on different currency pairs

MoDoS — **Tensorflow**

Fine-tuned and deployed an image classifier model trained on a highly imbalanced dataset

K-defauts — **Scikit-learn**

Developed a multi-label classification model for natural language data to categorize new flaws based on textual descriptions