

Valentin Fontanger

portfolio

EDUCATION

UNIVERSITY OF TOKYO

EXCHANGE, RESEARCH INTERN
Sep 2022 - Mar 2023 | Tokyo

SORBONNE UNIVERSITÉ

MSC : ARTIFICIAL INTELLIGENCE
Sep 2021 - Sep 2023 | Paris

- Distinction : honors

BASC : APPLIED MATHEMATICS

Sep 2018 - May 2021 | Paris

- Distinction : honors

SKILLS

TECHNICAL

- Python, SQL
- Pytorch, Numpy, Pandas
- REST API
- Nvidia Omniverse

CONCEPTS

- Computer Vision
- NLP
- Transformer architectures
- Deep Learning
- Machine Learning
- Statistical Learning

SOFT SKILLS

- Project Leadership,
- Adaptability in multicultural environments.
- Fluent in French and English

FUN FACTS

THINGS I LOVE

- Piano Jazz
- Economics literature
- Tennis boxing

CONTACT

- valentin.fontanger@gmail.com
- linkedin : valentin-fontanger

WORK EXPERIENCE

SPACE-VISION.AI | MACHINE LEARNING ENGINEER

Feb 2025 - Present | Seoul

- **Established** the company's first end-to-end data acquisition and AI experimentation infrastructure, replacing ad-hoc scripts with scalable pipelines.
- Designed and deployed a continuous video ingestion and annotation system from scratch (Google Cloud Platform), including a custom CVAT fork with automated labeling modules.
- Cut labeling costs by 74% and annotation time by 90% via knowledge-distilled models integrated into a CUDA-enabled CVAT fork, **growing high-quality data by 50%**. Deployed using Nuclio and Docker.
- Built a **multi-camera ReID training framework** with custom sampling, regularization strategies, **boosting Rank-1 from 60 % to 80%+ and mAP by 30%**.
- **Optimized inference pipeline** through **batching, asynchronous embedding retrieval, multi-threading**, boosting throughput by **+20% FPS** on the Hailo-8 NPU.
- Deployed on-site camera systems across Chicago, Las Vegas, Tokyo, Germany, and South Korea, securing key deals with SoluM, Roche, or LG.

MEMENT.AI | QUANT RESEARCHER

Aug 2024 - Jan 2025 | Seoul

- Researched on **attention based neural networks** in Time Series modeling in the context of market data.

CYPHERMOTION | FOUNDER

March 2024 - Oct 2024 | Paris

- Founded a startup delivering personalized feedback for tennis players via cell phone motion data. Led a team of four from four countries (France, Germany, US, Japan).
- **Built supervised datasets** for ball tracking, action recognition, and motion analysis. **Built a multi-head transformer** for motion embedding, classification, and pose estimation.

E.ON | QUANT ML ENGINEER

Jan 2023 - Mar 2024 | Prague

- Implemented advanced **forecasting models for energy demand and price** using **traditional statistical methods** and **Transformers**. I trained and deployed these models on a weekly basis.

INTERDIGITAL | RESEARCH INTERN

Apr 2023 - Sep 2023 | Los Altos California

- **Deep Learning based neural video compression research** in the heart of the Silicon Valley.
- Integrated video compression models to InterDigital's neural compression library, CompressAI.