MAXIM GROSSMANN

CONTACT

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France - Austria - Germany

French - German

LinkedIn Github

LANGUAGES

- English (Mother tongue)
- French (Mother tongue)
- German (B1)
- Spanish (B1)

TECHNICAL EXPERIENCE

AI, Datascience, & Machine Learning:
- Model evaluation, optimization & hyperparameter tuning
- Deep learning: CNNs, encoders & autoencoders, Transformers, LLMs (PyTorch, TensorFlow)
- NLP & Information Retrieval: semantic search, embeddings, RAG
- Data visualization (Pandas, NumPy, Matplotlib, Seaborn)

High-Performance Computing (HPC)
- Parallel computing concepts (MPI/OpenMP)
- Numerical simulation & computational modeling (Altair Inspire)

MLOps, Cloud & Systems
- ML pipelines & experimentation workflows; evaluation/quality gates
- CI/CD pipelines & automated deployments
- Google Cloud Platform (Cloud Run, Compute Engine/VMs, IAM, Cloud SQL/PostgreSQL, Firestore)
- Containerization (Docker)
- Secrets/env management & production security hardening (access control, HTTPS, rate limiting)

Programming & Development
- Python, C++, C#, R, SQL
- Web & app development: Django, React, Angular, Ionic, Node.js
- API integration (REST, GraphQL)
- Databases: PostgreSQL, MySQL

Other
- AI platforms: Altair AI Studio (RapidMiner), Twin Activate, IBM watsonx
- Embedded systems: Arduino, ESP32, BLE sensor data acquisition
- Cybersecurity: real-time CVE monitoring/analysis pipelines, CTFs
- Git & collaborative development

PROFILE

Master's student in Artificial Intelligence & Data Science at ESILV, following a High-Performance Computing track. Strong interest in machine learning, data analysis, and applied AI systems, with hands-on experience in data preprocessing, model development, and evaluation. Naturally curious and creative, with a constant flow of ideas and a strong drive to turn concepts into practical, working solutions. Currently seeking a **4-5 month internship** in Data Science and AI to apply technical skills in a real-world, data-driven environment.

EDUCATION

Engineering degree in Data science & AI 2021- Present
1st year of Master's CTI-accredited
- Optional Track: High-Performance computing and AI
- French preparatory classes (2021 - 2023)
- Professional skills: Public Speaking, Selling ideas effectively, Design Thinking, Team Collaboration, Personal Efficiency

Pôle Universitaire Léonard de Vinci, Paris, France

UVIC Study Abroad Program January 2024 - June 2024
International exchange semester
UVIC, Barcelone, Spain

International Baccalaureate 2019-2021
Score: 39/45, specialization in Physics, Mathematics, and Economics
International Bilingual School of Provence, Aix-en-Provence, France

PROFESSIONAL EXPERIENCE

Software and Application Development JUNE 2023 - SEPTEMBER 2023
- 3-month internship in Quito, Ecuador in an international flower exporting company (Mercados Virtuales Abiertos Mervirtual S.A)
- Developed the company's mobile application.
- Worked mainly with GraphQL, Angular, and Stripe CLI.

PROJECTS

AI-Powered Portfolio website with Retrieval-Augmented Assistant

Designed and deployed a production-grade AI portfolio platform enabling intelligent interaction and automated content delivery. I post projects on my website regularly.
- Built a full-stack platform using Django, PostgreSQL, and responsive frontend design.
- Implemented a Retrieval-Augmented Generation (RAG) assistant enabling semantic search and project-aware Q&A. The RAG is designed to answer users questions aout my projects, itself, and me.
- Developed an embeddings-based retrieval pipeline for contextual AI responses.
- Deployed on Google Cloud Run with managed PostgreSQL for scalability and high availability.
- Designed a CI/CD pipeline enabling automated build, testing, and deployment on code updates.
- Implemented production security best practices: environment secret management, HTTPS, rate limiting, and access control.

Tech: Django, Python, PostgreSQL, RAG, embeddings, Google Cloud, CI/CD, REST APIs, web security
Live: https://www.maximgrossmannportfolio.com/

AI & Data Pipeline for Emergency Monitoring — SENAPRED (for the Government of Chile, Team Project)

Built a real-time crisis monitoring system that ingests public disaster signals, processes them, and presents actionable insights via a web dashboard.
- Designed and deployed a real-time data pipeline for national emergency monitoring and alert support.
- Built Python services ingesting live disaster-related data via the Twitter API, with filtering, deduplication, and aggregation logic.
- Stored and served data using Firestore and deployed the backend on Google Cloud VMs.
- Developed a React/Node.js dashboard to visualize alerts, trends, and analytics for decision support.
- Delivered an end-to-end system from ingestion → processing → storage → visualization.
- Tech: Python, Twitter API, Google Cloud (VMs, Firestore), Data Pipelines, React, Node.js

AI-Based Workout Analysis System (Project Leader)
- Designed a sensor-based workout analysis system using ESP32 devices via Arduino Nano 32 BLE.
- Collected real-time motion data and built a labeled dataset to evaluate exercise quality and form.
- Implemented signal processing and AI-based classification to detect repetitions and incorrect movements.

Tech: ESP32, Arduino, BLE, Python, Embedded Systems, Machine Learning