Python Developer

Tom Keldenich

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EDUCATION

2016-2021 M2 - Engineering degree at CY Tech (Specialization in Artificial Intelligence)

2019-2020 M1 at Novosibirsk State University, Russia (Master Machine Learning)

EXPERIENCES

From 04/2025
To 06/2025

Python Developer - AWS | TotalEnergies

Context: Develop the backend of the Data Marketplace at TotalEnergies in close partnership with AWS consultants to ensure scalability and compliance. The Data Marketplace allows Data Owners to securely share Data Products, and enables users to subscribe, access, and integrate them.

Missions:
- Serverless backend using AWS Lambda (Python) and API Gateway to expose secure REST APIs, designed alongside AWS experts
- Fine-grained access control through IAM roles, custom Cognito author., and API Gateway policies
- Implem. of the subscription workflow, including request handling, approval logic, and data access provisioning
- CI/CD pipelines with GitHub Actions, integrated quality gates using SonarQube
- Delivery of features in Agile environment, working in sprints and planning sessions

Result:
Production-ready backend enabling secure Data Product sharing
Robust access control and governance compliance
Progressive knowledge transfer from AWS consultants to enable team independence

From 02/2025
To 03/2025

Python Developer - LLM, AWS | Independent

Context: Develop the Python backend of an LLM chatbot that answers users' questions about U.S. budget decisions by citing its sources.

Missions :
- Storage and transformation of PDF data into Vector DataBase (AWS S3, Chroma, Python)
- Development of a RAG algorithm with LLM and Vector DB (LangChain, Llama, Python)
- Development of a REST API to communicate with the algorithm (AWS EC2, Fast API, CORS)
- Integration to enable calling from an HTTPS frontend (AWS API Gateway)

Result:
Chatbot deployed in production
Questionable Vector DB and precisely sourced results

From 03/2024
To 02/2025

Python Developer - LLM, GCP | **fieldglass.ai**

Context: Develop the Python backend of the fieldglass.ai platform, with the aim of updating news automatically and receiving and responding to user requests from the frontend (API).

Missions :
- Development of a web scraping algorithm in Python
- Development of an AI Agent in Python (API, LLM, OpenAI API)
- Production of automated scraping functions (GCP Cloud Function, Flask)
- Production of AI Agent call functions (GCP Cloud Function, Flask)
- Database and Data Lake updates based on AI Agent calls (Google Firestore, Bucket Google Cloud Storage)

Result:
Automation of real-time news updates on the platform.
Successful integration with the OpenAI API, enabling content generation based on user needs.
User credits updated for each call to the AI Agent.

From 06/2022
To 03/2024

Data Scientist | **Inside Machine Learning**

Context: Launch of the Inside Machine Learning website to teach data processing and AI algorithm development in Python to novices and experts.

Missions :
- Writing articles on Machine Learning and Deep Learning in Python
- Monitoring and tutorials on new AI algorithms (Python)
- Participation in worldwide hackathon challenges in Python (Kaggle)
- Answers and troubleshooting on readers' technical questions

Result:
Over one million visits to my Python articles
Being cited as a source by CNRS, Stack Overflow and Wikipedia for my Python technical articles
First place in the Stores Sales Forecasting competition in Python, against experts from Google, Meta, Nvidia and Tencent.

From 08/2021
To 06/2022

AI Engineer | **Valeo**

Context: Development of an AI model for PII detection (face & license plate) for EU GDPR compliance within GEEDS.

Missions :
- Extraction of images from the Data Lake (Google Cloud Storage bucket)
- Processing and analysis of data and manual labels (Python, NumPy, Pandas)
- Monitoring and PoC on Computer Vision (SotA) models with the R&D team (Python, Vertex AI)
- Development of KPIs for validating Machine Learning models (Precision, Recall, F1-Score, Avg. Inference Time)
- Deployment of an image anonymization application on GCP (App Engine) in collaboration with the CloudOps team (Flask, Docker).

Result: Take the data anonymization project from idea to production prototype, accessible and available internally at Valeo.

From 08/2020
To 08/2021

Data Scientist **| Banque de France**

Context: Development of an AI model for classifying text by criticality level to reduce the time taken by the Help Desk to process priority tickets.

Missions :
- Extraction of tickets (SQL) and selection of relevant ticket characteristics for criticality classification
- Data Analysis and refinement of important ticket characteristics (Python, NLTK, SpaCy, Pandas, NumPy)
- Development of the classification model (Python, Sklearn, TensorFlow, Git)
- AI production launch, log evaluation (Linux, Bash, Docker)

Result: 67% reduction in processing time for critical tickets thanks to our AI in production, classifying emails by 3 levels of criticality.

LANGUAGE

French : Mother tongue

English : C2 (TOEIC 941/990)

Russian : B2 (Proficient)

SKILLS

- Python
- GCP
- AWS
- Linux
- Git
- Docker
- SQL
- API REST
- FastAPI
- Flask
- Bash
- Cloud

REFERRERS*

Hadrien GANTZER - TotalEnergies
Platform Product Manager

Alexandre BRIOT - Valeo
Artificial Intelligence Manager

Jonathan ROUX - Banque de France
Product Manager

**contact available on request*