Nikitas Papadopoulos

AI Engineer

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Bordeaux, France · French nationality

Profile

AI Engineer specialising in taking GenAI systems from prototype to production. Experience across RAG pipelines, LLM agents, real-time voice applications and AI-powered automation. Strong hands-on background in Python, backend systems, cloud deployment and client-facing solution architecture, with particular expertise in Azure and experience designing cloud-agnostic systems.

Experience

AI Engineer 2023–2026
Novatix (ANSAM Group) · Lausanne, Switzerland

- Led end-to-end delivery of custom AI products for enterprise clients, from prototype through production.
- Designed and shipped full-stack systems using Python, FastAPI, PostgreSQL, React, Docker and Azure.
- Built production GenAI systems including RAG assistants, LLM agents, workflow automation and real-time voice applications.
- Owned production monitoring and iteration across quality, adoption, cost and latency.
- Translated business needs into AI strategy, solution architectures and roadmaps; owned AI training for CTOs and CEOs and guided pragmatic adoption across their businesses.

Computer Vision Engineer 2022
biped · Lausanne, Switzerland

- Built real-time obstacle detection and ground-plane segmentation for a navigation device supporting visually impaired users.
- Developed ML-based hazard identification and represented the company at VivaTech Paris.

Machine Learning Engineer 2021–2022
Rovenso · Lausanne, Switzerland

- Developed deep-learning and computer-vision anomaly detection for a security robot, covering intrusions, hot spots and gas or liquid leaks.
- Contributed to Agile delivery through sprint planning, backlog refinement and retrospectives.

Professional Projects

EHL Public Chatbot *Production RAG assistant · ehl.edu*

- Designed and deployed a multilingual production RAG chatbot grounded in institutional content, with source traceability, dual-LLM validation and HubSpot lead integration.
- Built worker-based queue management with Redis to support the scale of EHL's millions of annual website visitors and thousands of concurrent users.
- Optimized average response latency from approximately 8 seconds to 3 seconds; ≈80% of questions were resolved directly and ≈10% of users requested follow-up contact.

NovaNote

- Led the evolution of a client project into a multi-tenant AI meeting-intelligence platform deployed across 30+ clients.
- Designed long-form transcription, speaker attribution, structured minutes, AI writing assistance, meeting briefs and contextual Q&A, with provider fallback across STT, LLM, storage and deployment environments.
- Reduced meeting-minutes workflows from 6–8 hours to under 20 minutes while supporting Azure, Swiss sovereign cloud and on-premises deployments.

AI Front Desk Avatar

- Architected and built a real-time voice-to-voice training system in which students practise hotel reception scenarios with an emotionally reactive virtual guest, using OpenAI Realtime through Azure Voice Live.
- Engineered emotional depth and conversational realism through a deterministic emotion state machine, rapport-aware behaviour and controlled emotional transitions.
- Implemented the full-stack system, including the FastAPI relay, React interface, audio streaming, avatar integration and infrastructure.
- Built an assessment engine combining voice, text and emotional signals to help students understand and improve their hospitality skills.

Document Intelligence Pipeline

- Designed a dual-VLM pipeline for splitting, classifying and extracting structured information from an 80 GB archive of mixed scanned real-estate documents.
- Built document-boundary detection, per-page field extraction, barcode recognition, confidence scoring and structured merge logic.
- Designed model abstraction to switch between Swiss-hosted Qwen3-VL and Azure GPT-5.2 while preserving Swiss/EU data-residency requirements.
- Added per-page and per-model cost tracking, with development benchmarks of approximately 0.08 CHF per 14-page document and 10 seconds processing time.

Technical Skills

GenAI & LLM RAG, LLM agents, tool use, MCP, embeddings, vector search, prompt engineering, model evaluation, guardrails, observability
Speech, Voice & Audio ASR, speaker diarisation, speaker identification, real-time voice-to-voice systems, text-to-speech, voice cloning, emotion-aware voice systems
AI & Document Intelligence Document classification, OCR, VLM pipelines, structured extraction, confidence scoring, workflow automation, CRM integration
Backend & Full-stack Python, FastAPI, PostgreSQL, Alembic, React, TypeScript, REST APIs, Redis
DevOps Azure, Terraform, Docker, GitHub Actions, CI/CD, cloud-agnostic deployment, AWS-compatible storage, OpenStack, on-premises systems
ML & Computer Vision PyTorch, OpenCV, anomaly detection, real-time perception
Tools & Methods LangChain, n8n, Flowise, Cursor, Claude Code, Codex, Agile/Scrum, stakeholder management, technical workshops

Independent Projects

Hermes AI Agent

- Built and deployed a persistent AI agent connected to WhatsApp through Meta's Business Cloud API, with persistent memory, Obsidian knowledge access and OpenRouter model routing.
- Deployed the system on Railway and implemented secure credential access through the Bitwarden Agent Access SDK with push approval on a phone for sensitive actions.
- Use it to search for jobs, manage calendars, book hotels and activities, handle administrative tasks and operate as a persistent tool-using assistant.

Moltgram

- Built and launched an Instagram-style social platform for AI agents, including agent posting rules, scheduled cross-platform promotion, engagement ranking and anti-cheating experiments.
- Used the experiment to study agent behaviour, incentive exploitation, repeated-account abuse and content originality.

Education

MSc, Robotics & Artificial Intelligence **2019–2022**
EPFL, École Polytechnique Fédérale de Lausanne · Final grade: 5.34/6 · Minor in Space Technologies

Exchange Year **2018–2019**
Universidad Politécnica de Madrid (UPM-ETSII)

BSc, Micro-engineering **2015–2019**
EPFL, École Polytechnique Fédérale de Lausanne

European Baccalaureate **2012–2015**
European School of Varese · Final average: 89.07/100 · Top of class

Languages

Fluent in French, Greek, English and Italian. Upper-intermediate Spanish.

Interests

Basketball: Semi-professional 3x3 and 5x5 player, top-10 Swiss ranking in 3x3, with experience as captain and coach. **Travel**: Backpacking through South America and Southeast Asia. **Hobby**: Traditional pizza making.