Cristi Miloiu

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TECHNICAL SKILLS

AI & Backend: LLMs, AI Agents, RAG, Langfuse, Python, FastAPI, PostgreSQL, MongoDB, Redis

Web & Cloud: TypeScript, React, Next.js, Tailwind CSS, Docker, AWS, Grafana, Cloudflare

Dev Tools & Productivity: Jira, Confluence, Slack, GitHub, Postman, TablePlus, Cursor

EXPERIENCE

Software Engineer   Sept 2023 – Present
Genezio   *Bucharest, Romania*
- Core member of the team that secured a **€2M pre-seed round** for a **serverless cloud platform**, later pivoting to develop **LLM brand visibility** and **enterprise AI agent testing** solutions.
- **Owner & Maintainer** of the backend and agents codebase, delivering **5000+ contributions** last year.
- Architected the **RBAC system using Casbin** to handle secure permissions and multi-account management.
- Built the **daily simulation engine** that executes user-defined scenarios and captures comprehensive interaction data.
- Implemented the **Metrics infrastructure** with robust **caching** for real-time analytics.
- Engineered **Red/Blue Team Agents** to simulate adversarial attacks and automate functional testing.
- Orchestrated **platform releases**, ensuring stability and quality assurance in production.
- Led **interviewing, onboarding, and mentorship** for interns/juniors, enforcing high code quality standards.
- **Technical Skills**: Python, FastAPI, PostgreSQL, MongoDB, Redis, React, Tailwind CSS, AWS, S3, Langfuse, Grafana, Docker

Full Stack Intern   June 2023 – August 2023
Genezio   *Bucharest, Romania*
- Enabled **CLI deployment** for **Lambda Functions** and **FastAPI**, directly streamlining developer workflows.
- Migrated **Next.js deployment** from OpenNext to a native solution, improving scalability and simplicity.
- Designed a **RAG system** using OpenAI & LangChain for context-aware Q&A on company documentation.
- Integrated the system into a **Discord bot** with **automated CI/CD** workflows using CircleCI.
- **Technical Skills**: Python, LangChain, OpenAI API, Next.js, FastAPI, Discord API, CircleCI

Technical Coordinator   Oct 2022 – July 2024
League of Electronics Students (LSE)   *Bucharest, Romania*
- Managed the **IT Department**, training volunteers in **web development fundamentals** and **GitHub** workflows.
- Delivered key web applications: **LSE București** (organization website), **APV** (charitable cross-country platform, **500+ users**), **BBETTI** (voting platform, **1,000+ users**), and **Laundry Reservation** (**700+ users**).
- **Technical Skills**: JavaScript, TypeScript, React, Node.js, GitHub, Tailwind CSS, PostgreSQL, Sequelize

System Engineering Intern   July 2022 – Sept 2022
Huawei Enterprise GSC   *Bucharest, Romania*
- Worked with enterprise storage protocols (SAN/NAS, RAID) and Linux server administration.
- **Technical Skills**: Linux, SAN/NAS, RAID, Enterprise Server Administration

EDUCATION

National University of Science and Technology Politehnica Bucharest   Bucharest, Romania
M.Eng. in Information and Computing Systems Engineering   *Oct 2025 – Present*
Faculty of Electronics, Telecommunications and Information Technology
- **Dissertation (WIP)**: Information Visibility in the Age of LLMs

National University of Science and Technology Politehnica Bucharest   Bucharest, Romania
B.Sc. in Computer Science   *Oct 2021 – July 2025*
Faculty of Electronics, Telecommunications and Information Technology
- **Bachelor Thesis**: Automatic Generation of REST and GraphQL API Interfaces using LLMs

PROJECTS

Bachelor Project - AI Agent System May 2024
Python, FastAPI, React, MongoDB, Gemini, AWS, Docker
- Built a **multi-agent system** using **Google Gemini** and an **LLM Provider Factory** to generate REST/GraphQL APIs.
- Architected the backend with **FastAPI** and **MongoDB**, employing **Agent Factory patterns** and **SSE** for real-time streaming.
- Integrated **automated deployments** via **Genezio** and **Langfuse** for observability and cost analysis.

Personal Portfolio Website Oct 2024
Next.js, React, Tailwind CSS, Vercel, Cloudflare
- Developed a modern, high-performance **portfolio website** using **Next.js** and **Tailwind CSS**.
- Optimized for speed and security, deployed on **Vercel** with **Cloudflare** for DNS management.

Audio Analysis Platform Jan 2024
Hardware, ESP32, FastAPI, React, WebSocket, Signal Processing
- Engineered a **hardware system** integrating **ESP32**, **Pre-Amp**, and **Microphone** for real-time audio processing.
- Implemented **FFT analysis**, digital filtering, and streamed data via **WebSockets** to a React dashboard.

Facial Emotion Recognition Jan 2024
Python, PyTorch, Vision Transformers (ViT), Streamlit, Docker
- Built a high-performance FER system using **Vision Transformers (ViT)** fine-tuned on a custom dataset.
- Implemented advanced optimization techniques: **Mixup**, **Label Smoothing**, and **Test Time Augmentation (TTA)**.

Comparative Modeling Environments Dec 2023
Rust, Go, C++, Python, Rayon, OpenMP, NumPy
- Simulated fire propagation using **Cellular Automata** to benchmark High Performance Computing (HPC) approaches.
- Compared parallelism models: **Rayon (Rust)**, **Goroutines (Go)**, **std::thread (C++)**, and **NumPy (Python)**.

AWARDS

3rd Place – Scientific Communications Session: Bachelor Thesis May 2025
National University of Science and Technology Politehnica Bucharest
- Awarded for the final implementation of the "Automatic Generation of REST and GraphQL API Interfaces using LLMs".

4th Place – Scientific Communications Session: API in Seconds May 2024
National University of Science and Technology Politehnica Bucharest
- Awarded for the initial prototype of the AI-driven backend generation platform.

1st Place – Electron Hackathon: Electrify the Campus May 2023
LSE Bucharest, Romania
- Developed a **Smart Campus parking solution** using **YOLOv5** for license plate detection and **EasyOCR** for text extraction.
- Integrated an automated barrier system using **ESP32** and a MySQL database for real-time access control.

2nd Place – Scientific Communications Session May 2023
National University of Science and Technology Politehnica Bucharest
- Built a stolen car finding mobile app using **YOLOv3** and color transformation algorithms for license plate recognition.
- Implemented specific image processing pipelines with **OpenCV** and geolocation tracking via email alerts.

VOLUNTEERING

Board Member Oct 2023 – Present
League of Electronics Students (LSE) *Bucharest, Romania*
- Representing students in the Board of Members, ensuring their concerns are addressed in decision-making processes.
- Developed **Risk Management** and strategic planning skills through organizational leadership.

Student Representative Dec 2023 – Present
National University of Science and Technology Politehnica Bucharest *Bucharest, Romania*
- Acted as a bridge between the student body and faculty administration, advocating for academic improvements.