

Egemen Gülpinar

Applied AI Engineer · Agentic Systems, Multimodal AI and Cloud Architecture

Email · LinkedIn · GitHub · Portfolio

Bielefeld, Germany

EDUCATION

Bielefeld University

Master of Science, Intelligent Interactive Systems

Bielefeld, Germany

Sep 2024 – Present

Bradford University

Certificate of Continuing Education, Computer Science; **GPA: 4.0/4.0 (1.0)**

Undergraduate Erasmus Exchange Student

Bradford, United Kingdom

Sep 2021 – May 2022

Mersin University

Bachelor of Engineering, Computer Engineering **GPA: 3.4/4.0 (1.9)**

Mersin, Turkey

Aug 2017 – Feb 2022

SKILLS

Languages: Python, TypeScript, JavaScript, Swift, SQL, C/C++, C#

Agentic AI: Claude Agent SDK, Claude Code, OpenAI Codex, Gemini CLI, LangGraph, Pydantic AI, DSPy, n8n, MCP, Multi-Agent Systems, Agentic RAG, GraphRAG, Context Engineering, Agent Skills & Subagents, Decision Models

Core: PyTorch, TensorFlow, scikit-learn, LangChain, LLMops, LLM/VLM Fine-Tuning, Video Understanding, OCR, STT/TTS, SAM, YOLO, OpenCV, NVIDIA CUDA (cuDNN, cuBLAS), Explainable AI, FastAPI, Docker

Experienced: Django, Node.js, React, Vector DBs (Qdrant, Chroma, FAISS, Pinecone), PostgreSQL, MySQL, MongoDB, Redis, RabbitMQ, BigQuery, AlloyDB, Kubernetes, Jenkins, W&B, Streamlit

Cloud: Microsoft Azure, AWS, Google Cloud (Vertex AI, Vertex AI Search), Oracle Cloud, de.NBI Cloud, GWDG

Methodologies & Tools: Agile, Scrum, OOP, TDD, Jira, Linear

EXPERIENCE

LIVAD Technologies

AI Solutions Architect (Freelance)

Los Angeles, CA, United States

Sep 2021 – Present, Remote

- Lead AI, automation, research and cloud end-to-end across 25 live production services: architecting AI pipelines processing 50+ TB of data, with evaluation, testing, benchmarking and monitoring gates before every release.
- Built a multimodal video-understanding system combining visual and speech analysis to enable text-to-search across thousands of videos, tracking emotion shifts and pinpointing key moments and laughter with precise timestamps, and feeding an agentic workflow that assembles ready-to-publish clips and articles.
- Architected a multi-tenant AI agent platform (Claude Agent SDK, LangGraph) with MCP tool servers, an agent-native CLI and least-privilege security (scoped tokens, rate limiting, audit trails), plus an internal assistant (agent skills and subagents) automating data, DevOps and support across Slack, Linear and Discord.
- Fine-tuned LLMs, SLMs and VLMs (Phi, Gemma, Qwen, GPT, LLaMA) on millions of data points for context recognition, and built VLM-based streamer face detection with real-vs-fake classification.
- Created a GARM-aligned brand-safety and campaign-verification system combining STT, sentiment analysis and context translation, matching spoken campaign phrases word-by-word with timestamps at near-exact accuracy.
- Successfully led the LIVAD Studio application to win two AdTech awards. (Project Link)
- Own cloud cost optimization across AWS, Azure and GCP, cutting GPU inference costs by 93% and continuously re-tuning workflows for efficiency; built CI/CD microservices and cloud tooling (GCP VM/container dashboard, data-lineage observatory).

Bielefeld University (GusDaF Chatbot)

Project Technical Lead

Bielefeld, Germany

Dec 2025 – Nov 2026, Hybrid

- Leading an AI-driven educational system funded by BMFTR and DAAD and used by over 1,000 users, running open-source LLMs via GWDG on de.NBI Cloud for scalable, cost-efficient, low-latency real-time inference.
- Built a RAG pipeline that OCRs scanned documents into vector-DB-ready formats and automatically generates learning materials, questions, and content from thousands of source data points.
- Built a German learning-material generator covering all four skills (listening, reading, writing, speaking), with level-specific content, TestDaF exam preparation and near-natural multi-voice TTS.

AI Agent for Mechanical Engineering

Technical Lead

Bielefeld, Germany

Dec 2025 – Sep 2026, Hybrid

- Delivered an agentic RAG workflow for a large industrial enterprise client, with know-how transfer over hundreds of thousands of OCR-processed documents and tool-calling agents that analyze engineering schematics, built to GDPR (DSGVO) and EU AI Act requirements for on-premise or cloud deployment.
- Built a generative pipeline that produces production-ready technical drawings (EPLAN) from images, PDFs or plain text (text-to-drawing), successfully integrated into the client's engineering systems and cutting work that took engineers days down to minutes.

Bielefeld University

Student Assistant

Bielefeld, Germany

January 2025 – September 2025

- Supported full-stack development of a dialogue-based Explainable AI system. (GitHub)
- Enhanced system stability and speed through performance optimizations. (GitHub)
- Added chunk-wise LLM streaming and real-time voice (STT/TTS) for low-latency, context-aware dialogue.

TUBITAK Space Technologies Research Institute

AI Engineer Intern

Ankara, Turkey

Aug 2021 – Sep 2021

- Researched Image Super-Resolution Using Deep Convolutional Networks. (GitHub)

BAYKAR Technologies

Volunteer Research and Development Engineer Intern

Istanbul, Turkey

July 2021 – Aug 2021

- Built satellite position mapping and matching on a world map (GitHub) and a custom BeiDou RINEX parsing library, finding a new link between RINEX data and satellite movements.

PROJECTS

Real-Time Translation Keyboard (iOS, native Swift): System-wide keyboard that translates as you type across virtually all languages, in real time with near-zero latency (App Store release pending).

Language Learning Companion (mobile-ready web app): Daily vocabulary and phrase reminders with practice sessions for foreign-language learners (release pending).

COURSES AND CERTIFICATES

Conference: Certificate of Attendance, ESCAN 2026, Rome (attended with our published Frontiers paper)

Microsoft: AZ-104T00 Azure Administrator; AI-102T00 Designing and Implementing an Azure AI Solution

Other: NVIDIA Inception Program workshops (Deep Learning Institute); Coursera Meta Back-End Developer; Inzva Applied AI Study Group; BAYKAR Certificate of Contribution, AI Competition in Transport

AWARDS

AI-Based Digital Electrical Engineering Assistant

Technical Lead

Dec 17, 2025

- Winner of the Founders Foundation Pitch Day; AI-based digital assistant for electrical design engineers.

LIVAD Studio In-Game Detection System (studio.livad.stream)

Project Lead Engineer

- IAB MIXX Awards '23 In-Game Ads Gold (Turkey) and Europe Finalist; Brandverse Awards '23 Silver

PUBLICATIONS

- Gülpınar, H. E., Skryzhadlovskaya, A., Haschke, R., Abramov, O., Jahanian Najafabadi, A. (2026). Emotional Modulation of Temporal Density in Natural Grasping: A Vision-Based Kinematic Study. *Frontiers in Psychology*, 17, 1823532. <https://doi.org/10.3389/fpsyg.2026.1823532>
- Gülpınar, H. E. (2022). Ransomware Attacks: Challenges and Defence. Zenodo. <https://doi.org/10.5281/zenodo.6651413>

LANGUAGE

Turkish: Native **English:** Fluent (C1) **German:** B1 (in progress)