schlieper.ch

# Alexander Schlieper

github.com/xSurus
in/alexander-schlieper

## Experience

**Google** — **SRE Intern** — **June 2026 – September 2026**

- *(20% project)* Improved NIAH long-context retrieval by 10% over softmax attention with a forget-gated attention variant (building on FoX), pre-training 2k/4k-context decoder-only LMs in JAX (NanoDO)
- Automated launching, monitoring and evaluation of 10+ multi-day pre-training runs on 16 A100 GPUs
- Cut time-to-detect for YouTube Shopping serving anomalies from 180 days to under 24h across 100+ merchants by building slice-based real-time alerting and refactoring C++ serving telemetry
- Won sign-off from 4 teams for an observability platform with zero migration overhead by writing the design doc and leading the streaming vs. batch trade-off analysis

**tabular** — **Data Science Intern** — **July 2025 – October 2025**

- Reduced manual user corrections in the automated invoice booking system by 40% by building and shipping gradient-boosted tree models in Python
- Owned production ML deployment via CI/CD on Azure ML, with drift monitoring and automated retraining

**BCG X** — **Visiting AI Engineer** — **March 2025 – June 2025**

- Shortened regulated content creation cycles by 40% for a biopharma client by building an LLM-based MVP that enforced regulatory and domain constraints
- Built end-to-end AWS data pipelines (S3, Lambda, Glue) processing client data from 100+ sources for model training and deployment

**Optiverse** — **Software Engineer** — **October 2024 – March 2025**

- Scaled the platform 10x to 1,000 users and 1,000+ meetings analyzed daily by building React integrations

**Evoleen AG (DigeHealth)** — **Software Engineering Intern** — **April 2024 – July 2024**

- Shipped the company's alpha digital health app in 3 months as the sole engineer, in Flutter/Dart

## Education

**ETH Zurich** — **MSc Computer Science** — **September 2024 – February 2027**

- GPA 5.0/6.0, Machine Learning track: Probabilistic AI, Large-Scale AI Engineering, Generative AI, Big Data

**ETH Zurich** — **BSc Computer Science** — **September 2020 – February 2024**

- GPA 5.0/6.0, focus on machine learning: Machine Learning for Genomics, Machine Learning, Algorithms

## Projects and Awards

- **Audience and Jury Awards, ETH Game Technology Center (2026):** 1st of 15 teams (Audience) and 3rd (Jury, Studio Gobo) for *Soot & Steel*; owned design, engine and gameplay. Presented at Gamescom, Cologne
- **Open source, Hugging Face LeRobot (2026):** merged fix to evaluation metric reporting; more PRs in review
- **Monocular depth estimation (2026):** DINOv2 + DPT depth model; diagnosed a train-test shift with a CLIP scene audit and fixed it with diffusion-generated training data and CLIP-gated SAM refinement
- **Invoice Supplier Matching (2025):** 95% accuracy matching raw invoice text to suppliers by fine-tuning sentence transformers in PyTorch with triplet loss
- **Second Prize, VisCon Hackathon (2021):** built a campus navigation app for ETH Zurich in Next.js

## Languages and Technologies

- **Programming:** Python, C++, Rust, Go, Java, TypeScript, C, Dart
- **ML:** PyTorch, JAX, Hugging Face Transformers, Sentence Transformers, LangChain, TensorFlow, Azure ML
- **Infrastructure:** AWS (S3, Lambda, Glue), Docker, Terraform, Git, Firebase, Next.js, Flutter
- **Spoken:** German, English, Portuguese (native), French (professional)
- **Interests:** Tennis, saxophone, surfing, skiing