Thösam Norlha-Tsang

Swiss Citizen | thosam.com | LinkedIn | Github | thosamthosamthosam@gmail.com

EDUCATION

ETH Zürich, *Master's Degree in Computer Science* — Sep. 2023 – Feb. 2027
Focus on Machine Learning, Data Science, and Big Data — Zürich, Switzerland

EPFL, *Bachelor's Degree in Computer Science* — Sep. 2020 – Jul. 2023
Focus on Algorithms, Databases, Software Engineering — Lausanne, Switzerland

PROFESSIONAL EXPERIENCE

Amperecloud — Feb. 2026 – Present
Software Engineer — Berlin, Germany

- Contributing to a large-scale **microservices platform** (**80+ backend services**, **36+ micro-frontends**) accelerating the **energy transition to renewables**.
- Shipped **customer-facing features** and **bug fixes** across **frontend** and **backend services**, collaborating with **cross-functional teams** (product, customer success) in **Agile sprints**.
- Proficient in **AI-assisted development workflows** (MCP, plugins, skills, sub-agents); integrated **Claude Code** into daily coding to navigate a **120+ repo polyrepo codebase** and accelerate ticket delivery.

Adnovum — Feb. 2024 – Jul. 2024
Software Engineer Intern — Zurich, Switzerland

- Implemented **data ingestion pipelines** using the Strategy pattern, **APIs**, and **microservices** methods, while refactoring existing logic for maintainability.
- Ensured software quality through testing: unit, integration, and end-to-end tests (**OpenShift**) and participated in code reviews.
- **Automated CI/CD workflows** via **GitHub Actions**, updated dependencies/plugins, and handled deployments.

PROJECTS

Open Deep Search Optimization - Datathon, *Rank: 4* — Apr. 2025

- Enhanced **multi-hop QA** in **OpenDeepSearch** by integrating **DeCRIM (DecomposeCritiqueRefine) self-correction pipeline**.
- Designed **LLM agent prompting (ReAct/CodeAct)** and **embedding-based reranker 74.1% FRAMES benchmark score**.

Interpretable and Explainable Classification, ETHZ, *Grade: 5.8/6*- Github — Apr. 2025 - May 2025

- Compared **logistic regression**, **Neural Networks**, and **Neural Additive Models (NAMs)** on **heart disease tabular data**; leveraged **NAMs' inherent interpretability** and **SHAP** for feature attribution.
- Trained **CNNs** for **pneumonia detection on chest X-rays**; applied **Integrated Gradients** and **Grad-CAM** to localize decision-relevant regions, reduce **spurious correlations**, and align reasoning with **clinical knowledge**.

RESEARCH EXPERIENCE

Structured Reasoning and Ethical Alignment in LLMs, *Master's Research Project* — Oct. 2025 – Feb. 2026
SPCL - Scalable Parallel Computing Lab — Zürich - ETH, Switzerland

- Designed and implemented a **modular graph-based reasoning framework** in **Python** to constrain and analyze **LLM behavior** under predefined rules.
- Built and evaluated multiple **reasoning strategies** on **public moral-reasoning benchmarks**; integrated **local and API-based LLMs** with focus on **alignment, interpretability, and failure analysis**.
- Co-authored a research paper (in preparation).

SKILLS

AI-Assisted Development: Claude Code (MCP, plugins, skills, sub-agents); parallel multi-agent workflows
Backend / Systems: Python, Java, Spring Boot, Scala, JavaScript, TypeScript, Node.js, SQL (PostgreSQL, MySQL), MongoDB, Redis, VictoriaMetrics, DuckDB, ETL, REST APIs, Microservices, Scaling, Docker, OpenShift, Kubernetes, Git
Frontend / Full-Stack: React, React Native, Redux, Next.js, Vue.js, HTML/CSS, Figma
Testing / DevOps: Test-Driven Development, Code Review (feedback) JUnit, CI/CD pipelines, Agile/Scrum, Version Control