



Manuel Buser

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AI Engineer with practical experience across data science, conversational AI, and cloud-based system integration. Skilled in developing and deploying end-to-end AI solutions that bridge technical innovation with real-world business impact. Experienced in machine learning, API development, and DevOps practices, with a focus on designing scalable, data-driven architectures that enhance automation and decision-making.

Skills

– LANGUAGES

German NATIVE	English FLUENT
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– TECHNICAL

Languages & Frameworks PYTHON, JAVA, JAVASCRIPT, REACT, HTML, CSS, SPRING BOOT, QUARKUS	Integrations & Architectures REST APIS, KAFKA, MICROSERVICES, UNION AND MVC ARCHITECTURES
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AI & Machine Learning NLP, LLMS, RAG, CLUSTERING, VECTOR DATABASES, SEMANTIC SEARCH, PYTORCH, LANGCHAIN, LANGGRAPH, HUGGING FACE	Cloud & DevOps OPENSIFT, DOCKER, GITOPS, ARGOCD, CI/CD, MLOPS PIPELINES
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Data Management MONGODB, ORACLE, MYSQL, DATA WAREHOUSES, ETL PROCESSES, SQL, DATA QUALITY MONITORING	Analytics & Reporting POWER BI, SAS VISUAL ANALYTICS, DATA VISUALIZATION, KPI DASHBOARDS
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Coordination & Technical Documentation PROJECT MANAGEMENT, REQUIREMENTS GATHERING, DOCUMENTATION	Process Modeling & Automation: ADONIS, CAMUNDA, N8N
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Work Experience

08/2025 – Present
Basel, Switzerland

Conversational AI Engineer
Center of Process Automation at Helvetia

- **Develop and maintain AI Voice Agents** for customer support teams, including prompt design, knowledge source creation, and continuous improvement of dialog quality through **LLM- and retrieval-augmented generation (RAG) pipelines**.
- **Build API integrations** connecting the agents platform with internal systems such as CRM, customer databases, notification services, and appointment booking tools.
- **Develop and maintain cloud-native microservices** on OpenShift with **GitOps-based CI/CD (MLOps)** pipelines using ArgoCD and automated deployments.
- **Create and manage a MongoDB-based vector database** for transcripts and metadata, enabling **semantic search and topic clustering** to analyze customer interactions and extract key insights, while owning the **reporting setup** for performance tracking and operational monitoring.
- **Apply machine-learning and intent-classification techniques** to detect customer intents and continuously refine AI Voice Agent behavior and use cases.
- **Collaborate with cross-functional teams** to deliver secure, scalable, and measurable AI capabilities.

Work Experience

10/2023 – 07/2025

Basel, Schweiz

Data Scientist

Team Customer & Partner Data at Helvetia

- **Advanced from a Working Student to a Data Scientist**, responsible for ensuring the data quality of Helvetia's core systems across the company.
- **Planned and developed a data quality dashboard prototype** using **SAS Enterprise Guide** and **SAS Visual Analytics**, covering the complete ETL flow and delivering automated reports that enabled data-driven decision-making.
- **Created and maintained on-demand reporting** for the customer database and **Salesforce UNO (CRM)**, supporting data quality monitoring and operational insights across departments.
- **Designed and implemented automation solutions**, including an **address verification service** in collaboration with **Swiss Post** to identify and correct outdated customer information through an automated process.
- **Led the development of a customer duplicate-detection algorithm and automated merging process**, integrating **Python**, **cloud services**, and **data warehouses** with existing **legacy systems**.
- **Served as project manager**, coordinating cross-functional teams to translate business needs into scalable data and AI solutions within a regulated enterprise environment.

12/2018 – 09/2023

Liestal, Schweiz

Consultant Outbound / Intern

BLKB

- **Held multiple positions** before and after the civil service year, including an internship and client consulting roles.
- **Gained foundational experience** in banking, business processes, client communication, and project collaboration, which later supported the transition into data and AI roles.

05/2020 – 05/2021

Region Baselland, Schweiz

Civil Work

Mettlihof & Kita Löwenzahn

- **Completed one year of mandatory civil service** in Switzerland as an alternative to military service, assisting in agricultural and childcare organizations.

Education

09/2024 – Present

Basel, Schweiz

Computer Science (Machine Intelligence) | Master University - Department of Mathematics and Informatics

09/2021 – 08/2024

Basel, Schweiz

Business Information Technology | Bachelor FHNW

Bachelor Program in English at FHNW

06/2021 – 07/2021

London, UK

English Language Exchange EF Education First

Language exchange as preparation for the Bachelor Program.

08/2015 – 07/2018

Liestal, Switzerland

WMS | Swiss Federal Vocational Baccalaureate kvBL

Business school for obtaining the vocational baccalaureate.

Hobbies



Diverse range of
ball sports



Audio Books and
Podcasts



Hiking and
photography