Dustin Walker

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EDUCATION

MASTER
Digital Business Engineering
Reutlingen University
Computer Science 70%, Business 30%
Mar 2021 - Oct 2022
Grade 1.3
Valedictorian
Student Representative
Led my team in the 3 most demanding courses (AI, Project, Distributed Systems)

BACHELOR
Mechatronics
Reutlingen University
Computer Science, Mechanics, Electronics
Focus: Automation Technology
Mar 2017 - Feb 2021
Grade 1.8

PUBLICATIONS

[1] Theoretical Foundation, Effectiveness, and Design Artefact for Machine Learning Service Repositories PACIS 2022

SKILLS

Python	●●●●●
Cloud	●●●○○
Generative AI	●●●●○
LLM Inference	●●●○○
Agentic	●●●●○
Prompt Eng.	●●●●●
Data Science	●●●○○
Web Dev	●●●●○
Communication	●●●●○

Languages
German – Native
English – Business fluent

More Skills
Agile • Scrum • Entrepreneurship • Public Speaking • CAD • 3D-Printing • Powerlifting

EXPERIENCE

SENIOR GENERATIVE AI ENGINEER
May 2024 – Present | Alexander Thamm GmbH

Air-Gapped Agentic Assistant for Power Plant Operators | Energy | Team of 5
- smolagents; llama-server; Qwen-3.8-27B; FastAPI; React; Vite; Postgres; pgvector; Podman
- Led architecture and was the main contributor to an on-premise agent that answers operator questions from **41k** pages of documentation and live plant data, with no internet connection

AI Across the Software Development Lifecycle | Energy | Team of 3
- Assessed the SDLC of **3** development teams on-site and advised on how to optimize the entire SDLC with AI

AI-Assisted Coding Solution | Internal | Team of 2
- Azure; OpenRouter; Cline; Streamlit
- Convinced our CEO to spend money. Achieved **25%** $\frac{1}{TAM}$ monthly active users within 2 months

Agentic AI Workflow to Describe & Analyze Telemetric Data | Automotive | Team of 5
- Azure; Databricks; MCP-Server; Databricks Apps; SQL; Python; LangGraph
- Cut "time to insight" from **1 month to 1 prompt**

AI Workflow for Classifying Power Plant Documentation | Energy | Team of 1
- Azure AI Foundry; W&B; Vision Language Model; Windows CLI tool outputting Excel sheet
- Led architecture, implementation, and customer communication. Beat the human benchmark by **6%** in classification accuracy, saving **€200k** per year

PoC for the Central Internal Data Marketplace on Databricks | Automotive | Team of 5
- Azure; AWS; Databricks; React; Vite; Databricks Apps; Python; FastAPI
- Architected and implemented a PoC for the central data marketplace of a large company with **20k** potential internal users

Chatbot for Document Understanding | Public | Team of 2
- Azure; Streamlit; Azure AI Foundry; pdfplumber
- Architected and implemented a PoC chatbot for document understanding

AI Workflow for Marketing Copy Generation | Automotive | Team of 7
- AWS; AWS Lambda; RAG; Python; Angular; FastAPI; NLP
- Fine-tuned the AI workflow to adhere to brand terminology, tonality, and guidelines
- Reduced campaign creation time **from 6 to 2 weeks**, saving up to **€6M**

DEVOPS ENGINEER
Nov 2022 – Mar 2024 | Canon Production Printing
- Led the project for automating software builds, decreasing build time by **74%** through reduced complexity and streamlined configuration that improved Developer Experience (DX)

DATA SCIENTIST Master's Thesis
Mar 2022 – Oct 2022 | iT Engineering Software Innovations GmbH
- Used Reinforcement Learning to teach industrial robots how to move
- Read my thesis at data.dustinwalker.de/master_thesis.pdf

SOFTWARE ENGINEER Internship
Jan 2019 – Sep 2020 | Robert Bosch Power Tools GmbH
- Increased accuracy of 3D scanner **10x** by reworking the pipeline for transforming single images to an RGBD panorama image using ML and panotools

PERSONAL PROJECTS

WEB APP WITH AUTHENTICATION FOR SEMANTIC SEARCH LIVE HERE
- TypeScript; TanStack; React; Supabase; pgvector; OpenAI; Gemini Embeddings
- Compared 4 different embedding models in a vector database with **>150k records**

THERE ARE MANY MORE HERE, HERE, AND HERE.