



Frank Oliver Schmitz

Chief Innovation Engineer

AI/ML leadership with hands-on experience in computer vision, deep learning, and agentic AI at enterprise scale.
foschmitz@gmail.com linkedin.com/in/schmitzfrank Cologne metro area, Germany

PROFILE

Experienced technology leader with an AI/ML focus. Built and led engineering teams (PhDs, MSc, senior engineers) for computer vision, deep learning, and agentic AI. Annual budget responsibility in the low seven-figure range, individual project budgets in the mid to high six-figure range. Stakeholder management up to board level. Bridging technical excellence and business impact.

20+

YEARS EXPERIENCE

10+

KEY PROJECTS

50+

CERTIFICATIONS

SKILLS

AI & ML: Python, PyTorch, OpenCV, LLMs (Claude, GPT), Google Agent Development Kit, RAG, Prompt Engineering

Software Engineering: Java, Spring Boot, Spring Cloud, Microservices, TypeScript, React, Node.js

Cloud & Infra: Google Cloud Platform, Docker, CI/CD

Methodology: OKR (Murakamy), Scrum, Kanban, ADRs, Software Architecture

LEADERSHIP

7-figure

ANNUAL BUDGET

10

DIRECT REPORTS

~30

CAREER HIRES

96%

RETENTION (4 YRS)

6+

STAKEHOLDER GR.

Approach: Up to 10 direct reports across three specialized sub-teams, plus indirect leadership of up to 30 project participants via external partners and cross-functional teams. Built and developed a deputy.

OKR Methodology: Murakamy methodology with 16-week cycles for strategic goal achievement.

Processes: 22 documented processes for engineering, innovation, and team management.

Feedback & Development: Career paths from experienced to expert level. Lead-up and step-up programs. 360° feedback and empathetic leadership under pressure.

CAREER TIMELINE

Apr 2023 – Present

Chief Innovation Engineer

REWE digital GmbH, Cologne

Reports to Head of Engineering. Led R&I Engineering team of up to 10 (PhDs, MSc, senior engineers) across three specialized sub-teams. Annual team budget in the low seven-figure range. Responsible for technology decisions and AI/ML, computer vision, and agentic AI initiatives. 22 documented processes, OKR-driven management.

Dec 2018 – Apr 2023

Innovation Manager

REWE digital GmbH, Cologne

End-to-end ownership of 6+ innovation projects with own staff and cross-functional teams. Business cases, budget proposals, and stakeholder management (legal, data privacy, sales, works council, external partners). Regular board presentations. Media spokesperson with 92M+ reach.

Aug 2017 – Dec 2018	 Squad Architect, Fulfilment REWE digital GmbH, Cologne Technical architect for the Fulfilment tribe (~6 squads, ~30 engineers). Technical leadership via binding ADRs with consensus process, code reviews, and monolith-to-microservices migration.
Aug 2016 – Aug 2017	 Java Developer REWE digital GmbH, Cologne Built microservices for Germany's largest online grocery platform using Java, Spring Boot, and Spring Cloud.
Jul 2015 – Aug 2016	 Team Lead, API & Mobile FlowFact AG, Cologne Led cross-border development team (Germany & Ukraine) as Scrum Master. Defined API strategy and drove mobile development.
Apr 2015 – Jun 2015	 Project Lead, FlowFact Austria FlowFact AG, Cologne / Vienna Market launch of CRM for the Austrian market, covering product customization, i18n, and data migration.
Feb 2014 – Mar 2015	 Java Developer FlowFact AG, Cologne Returned to software engineering after sabbatical. Built enterprise CRM microservices with Java EE, Spring, Hibernate, and Vaadin.
Nov 2012 – Jan 2014	 Career Pivot & Self-Directed Study 13 university courses (Princeton, Columbia, Wharton, Vanderbilt, Georgia Tech). Built 3 quantitative trading systems in Python.
Sep 2008 – Oct 2012	 Sales Executive Savills / Quinta Properties, Algarve, Portugal Licensed real estate agent (INCI No. 1984). Luxury property sales to international HNWI clients in three languages (DE/EN/PT). EUR 50M personal sales volume over 4 years.
Jan 2007 – Aug 2008	 Product Manager FlowFact AG, Cologne Established the Product Management department. Created 5-year product roadmap with market research and competitive analysis.
Aug 2005 – Dec 2006	 Consultant FlowFact AG, Cologne Enterprise CRM implementations for Deutsche Bank, LBBW, Dr. Lübke Immobilien, Corpus Sireo, RE/MAX, and ERA. Earned 4 Microsoft CRM certifications.
Feb 2002 – Jul 2005	 Sales FlowFact AG, Cologne Managed IT service clients, sold CRM software, and secured project engagements.
May 2000 – Jan 2002	 IT-Systemkaufmann (Apprenticeship) Paribus GmbH / FlowFact AG, Cologne Vocational training as IT-Systemkaufmann. Apprenticeship shortened to 2 years. Developed custom solutions and addons based on FlowFact CRM.
Jun 1999 – Apr 2000	 Military Service Bundeswehr, Diez a.d. Lahn Compulsory military service.

KEY PROJECTS

Detailed project documentation with media: frankschmitz.net/en/portfolio

Agentic AI Store Assistant

2025

Chief Innovation Engineer / Technical Lead

Multi-agent system for store operations built on Google Agent Development Kit

Partners: [Google \(Agent Development Kit\)](#)

95 % Intent recognition target 90 % Orchestration accuracy target 20 % Time savings target 1,5 Jahre Ahead of industry hype

AI Coding Agent Evaluation

2025–2026

Chief Innovation Engineer / Evaluation Lead

Systematic evaluation of AI coding agents across 50 engineers with potential scale-out to 700

50 Pilot engineers ~700 Potential developers 6 Key decision-makers

Computer Vision Platform & Digital Twin

2024–ongoing

Chief Innovation Engineer / Technical Lead

In-house CV platform for product recognition, customer tracking, and shelf analytics

≤ 6 Engineers on team 95 % Product recognition target 90 % Global tracking target

Drone Food Delivery

INDUSTRY FIRST

2023–2024

Innovation Manager / Project Lead

Germany's first commercial BVLOS drone flight for food delivery

Partners: [Wingcopter](#), [Frankfurt University of Applied Sciences](#)

172 Orders 110+ Flights 2.500+ km distance 26 Weeks operation 6,7 % Household penetration 5 Merchants 92 Mio.+ Media reach

Smart Carts with AI Shopping Assistant

2023–2025

Innovation Manager / Project Lead

AI-powered shopping assistant on smart carts with up to 498% sales uplift

Partners: [Catch Retail](#)

522.100+ Interactions 22.700+ Shopping lists 6.000+ Active users / week 110 Equipped carts 498 % Max. sales uplift (individual items)

REWE Lieferbot — Autonomous Sidewalk Delivery

2022–2023

Innovation Manager / Project Lead

Autonomous delivery robot with 100+ deliveries within a 1.6 km radius

Partners: [Cartken](#), [Lastmile.It](#)

100+ Deliveries 1,6 km Delivery radius 15 kg Payload capacity

Europe's First Autonomous Vending Kiosk

INDUSTRY FIRST

2021

Innovation Manager / Project Lead & Media Spokesperson

Self-driving vending kiosk with Neolix/Baidu Apollo and Vodafone 5G

Partners: [Neolix](#), [Baidu Apollo](#), [Vodafone \(5G\)](#), [Spring Mobility](#)

256 Transactions in 4 weeks 160 / 32 Articles / SKUs 6 km/h Regulatory speed cap

Shelf Intelligence Evaluation

2021–2023

Innovation Manager / Project Lead

Evaluation of AI-based shelf monitoring as precursor to the HOLON platform

Partners: [Trax](#)

First Autonomous Checkout Supermarket in Germany

2020–2021

Innovation Manager / Initiator & Engineering Project Lead

Computer vision-based grab-and-go with ~400 cameras and hundreds of customers daily

Partners: [Trigo](#)

188 m² Store size ~400 Cameras 100+ Customers daily

REFERENCES

Particularly noteworthy is Mr. Schmitz's ability to quickly and thoroughly engage with new technologies and turn them into practical results for the business.

FlowFact AG — Employment Reference 2016

Mr. Schmitz maintained oversight of complex project requirements and translated them into concrete work packages, coordinating their execution.

FlowFact AG — Employment Reference 2008

We have no hesitation to recommend him highly. An invaluable asset to whom ever he chooses to work with in the future.

Kerstin Buechner, Director — Quinta Properties / Savills 2012

EDUCATION

2025 – **Master of Science in Artificial Intelligence** IN PROGRESS
Woolf University (Malta, EU-accredited) / Udacity (Part of Accenture)
Expected 2027 — 20 ECTS exempted

2002 **IT Systems Management (IHK)**
Paribus IT Betreuung GmbH, Cologne
Apprenticeship shortened to 2 years

1999 **Abitur (University Entrance Qualification)**
Freiherr-vom-Stein Gymnasium, Leverkusen

TRAINING & CERTIFICATIONS (50+)

- Introduction to Machine Learning with PyTorch Nanodegree — Udacity (Part of Accenture) (2026) IN PROGRESS
- AI for Business Leaders Nanodegree — Udacity (Part of Accenture) (2026)
- AI Programming with Python Nanodegree — Udacity (Part of Accenture) (2026)
- Agentic AI Nanodegree — Udacity (Part of Accenture) (2026)
- Deep Learning Nanodegree — Udacity (Part of Accenture) (2024)
- OpenCV 102 — OpenCV (2021)
- OpenCV Basics — OpenCV (2021)
- Deep Learning and Computer Vision A-Z — Udemy (2018)
- Marketing — Wharton (2015)
- Operations Management — Wharton (2015)
- Accounting — Wharton (2014)
- Cloud Services for Android — Vanderbilt University (2014)
- Financial Engineering II — Columbia University (2014)
- Pattern-Oriented Software Architectures — Vanderbilt University (2014)
- Mobile Applications for Android — University of Maryland (2014)
- Financial Engineering I — Columbia University (2014)
- Precalculus — Coursera (2014)
- Statistics One — Princeton University (2013)
- Mathematical Methods for Quantitative Finance — University of Washington (2013)
- Computational Finance — University of Washington (2013)
- Computational Investing — Georgia Tech (2013)
- Software Architecture — Professional Training (2018)
- Microsoft CRM Customization — Microsoft (2006)
- Microsoft CRM Installation & Configuration — Microsoft (2006)
- CRM Implementation Methodology — Microsoft (2006)
- Microsoft CRM Application — Microsoft (2006)
- Engineering: Java Web Security (Professional Training) · Advanced Enterprise Jenkins CI/CD (CloudBees) · TypeScript (Professional Training) · Microservices with Spring Cloud (Udemy) · Ionic2 & Angular2 (Professional Training) · ReactJS and Flux (Udemy) · Node.js (Udemy) · Advanced JavaScript (Udemy) · Web Developer (Udemy) · Advanced Vaadin (Professional Training) · C++ for C Programmers (Unilog Integrata)
- Lifelong learner: + 18 additional certifications in business, leadership, and other domains