

Vinzent Hubrich

Software Engineer

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EXPERIENCE

Data Analytics Engineering Intern - Tesla

July 2026 - Present

- Developed Python automation and React/TypeScript interfaces, integrated APIs, and extended internal applications supporting workflows across multiple teams, including inventory, procurement, and request fulfillment.
- Optimized SQL queries and Airflow pipelines through query restructuring, indexing, batching, and incremental processing; replaced manual processing steps and added data validation, retries, automated tests, and monitoring.

Python | TypeScript | React | SQL | Airflow | MySQL | PostgreSQL | Vertica | ClickHouse

Full-Stack Software Engineer (Working Student) - Infineon Technologies

May 2024 - June 2026

Internal enterprise platform for semiconductor facility management

- Built a facility management platform with full ownership from requirements through pilot deployment, including system architecture, C#/.NET services, a Vue/TypeScript frontend, and Oracle/S3 data infrastructure.
- Optimized large BIM model visualization through on-demand loading, geometry simplification, instancing, visibility culling, and model preprocessing, improving load times and navigation responsiveness during pilot use.
- Implemented AI-assisted facility search combining keyword/vector retrieval, graph traversal, contextual filtering, and natural-language generation of SQL and graph queries to connect equipment, document, and maintenance information.

C# | .NET | LiteLLM | GraphRAG | Vue | TypeScript | AWS S3 | Oracle Database | DevOps

Software Developer & Co-Founder - Quicr

2022 - 2024

Public fitness engagement platform with QR-based activity flows | quicr.eu

- Co-founded and launched a QR-based fitness platform with full technical ownership, building the React/TypeScript frontend, backend services, authentication, and activity flows on Firebase and Google Cloud.
- Supported fitness events and public-space activities through municipal partnerships, reaching 2,000+ participants and generating approximately €10,000 in revenue.

React | TypeScript | Node.js | Firebase | Google Cloud Platform

SELECTED PROJECTS

Immersive Gaussian Splatting

2026

- Developed the Quest application for a university group project, implementing camera capture and calibration, headset/backend communication, and runtime Gaussian splat rendering.
- Implemented rendering optimizations, object selection, and mesh-export integration to support inspection and export of reconstructed environments in mixed reality.

Unity | C# | Meta Quest 3 | OpenXR | Python | PyTorch | gsplat

MapMyMiles.app | mapmymiles.app

2026

- Built a React/TypeScript customization interface and canvas rendering pipeline that transforms Strava activities into print-ready artwork.
- Implemented Strava OAuth and token refresh, activity ingestion, backend APIs and data models, plus Stripe checkout and payment webhooks.

TypeScript | React | Node.js | OpenAPI | OAuth 2.0 | Strava API | Stripe

FollowUp | apps.apple.com/de/app/followup-stay-in-touch/id6761209411

2026

- Built and released an iOS relationship management app with full ownership, using SwiftUI and SwiftData for contact management, interaction history, and persistent on-device storage.
- Integrated Apple Foundation Models for on-device summaries and conversation suggestions, alongside follow-up scheduling, notifications, and contact import.

iOS | Swift | SwiftUI | SwiftData | Foundation Models | Xcode

Endomersion

2025

- Extended a surgical telementoring research prototype in a university group project, synchronizing state across VR and desktop clients and integrating robot control through ROS.
- Implemented control-permission requests, transfers, robot-arm switching, and lead-operator overrides to prevent conflicting commands during multi-user operation.

Unity | C# | ROS | VR/XR | Networking | Robotics

EDUCATION

M.Sc. in Computer Science

Technical University of Dresden | Expected March 2027

Focus: Machine Learning, VR/AR, Information Retrieval, Robotics and Distributed Systems.

B.Sc. in Computer Science

Technical University of Dresden | 2025

Thesis: Adaptive Data Visualization in Mixed Reality to Support Hosts of Multi-User Experiences.

SKILLS

Programming Languages

C/C++ | Java | C# | Python | JavaScript | TypeScript | Swift | SQL

Systems & Architecture

Concurrent & Distributed Systems | Operating Systems | Microservices | Design Patterns | System Design

Cloud & DevOps

Git | CI/CD | Google Cloud Platform | AWS | Docker

Specialized & Engineering

AR/MR | AI/ML | Computer Vision | Robotics | Graphics Programming | TensorFlow/PyTorch

Frameworks

React | Vue | SwiftUI | Flutter | Spring | .NET

Languages: German (C2) | English (C1)