# Freelance Software Engineer: Python, SQL, REST-APIs, Server automation

For privacy reasons, you can only find a limited version of my profile here, but I’m happy to provide full details upon request.

## Profile

* Focus on web applications and open source software
* Key skills: **Python, FastAP, Django, SQL databases, server automation**
* 13 years experience as web application engineer and architect from concept to handover
* Lot of experience with CI/CD Automation (Kubernetes, Helm, Ansible) on Gitlab, Github, Cloud and self-hosted
* Interdisciplinary work experience in multiple countries (i.a. Australia, Vietnam, Singapore)
* B.Sc. degree in Online Media (Hochschule Furtwangen) focused on web technologies
* In top 6% of stackoverflow.com contributors

## Contact details

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## Location

Ingolstadt, Bavaria, Germany. Halfway between Munich and Nuremberg.

## Availability

* Happy to take on full-time or part-time assignments
* On-site/Hybrid within Germany or remote
* Mobile by car

## Project history

### Cloud application for energy management systems (Dec 2024 - current):

* Role: Lead Cloud Engineer
* Scope: Development, architecture and scaling of Django web project and gRPC data consumption, analysis and control of thousands of devices
* Technologies: Python, Django, Postgres, Kubernetes, Docker, Ansible, gRPC, Helm, HTML, CSS

### Rest APIs on Azure Cloud for processing of vehicle documents for federal subsidies (Feb 2022 – Nov 2024):

* Role: Tech lead & Solution architect
* Scope: Head of software engineering and IT team – initial creation and further management of cloud infrastructure – developed and maintained concepts for microservice architecture to ensure scalable and secure solutions – B2B client engagement for technical interfaces – cross-functional coordination with non-tech teams – leadership and mentoring on coding, hiring developers
* Technologies: Python, FastAPI, SQLAlchemy, MariaDB, Azure (ActiveDirectory, Blob storage, Functions, App Registry), Vue.js
* Achievements:
  + Successfully tailored technical interfaces for major players in the e-car sector (including Volkswagen, Elli, chargepoint, carbonify, e3dc) and fleets of large German towns (e.g. Stadtwerke Bielefeld / Mainz / Münster) for multi-year partnerships.
  + Created concept and architecture for two cloud-based FastAPIs to be the first automated solution on the “THG” market:
    - For vehicles: upload + OCR-parsing of documents with on-the-spot recognition of eligibility for funding in the current year-
    - For chargepoints: multi-level administration and validation of consumption data for submission to the ministry
* 70,000+ successful applications with the Umweltbundesamt totaling 25 million € of funding
* Close to cost-neutral solution for bulk payout and bill document generation for tens of thousands of transactions.

### Django-based ERP & eCommerce systems with 6-digit daily revenues (Nov 2015 – Jul 2021):

* Role: Freelance Web Engineer
* Scope: modeling and development of browser-based ERP & eCommerce systems with 6-digit daily revenues – server management of dozens of machines – business intelligence reporting – peer code review and ensuring test coverage
* Technologies: Python, Django/rest-framework, HTML, CSS, jQuery, MySQL, Docker, Ansible
* Achievements
  + Reduced necessary database queries and page load time by up to 90% by using advanced database queries and object relationship mapping.
  + Cut time needed for configuration of staging/production/development machines by 80% by reengineering the existing ansible setup.

### Time management tool for car prototying (Oct 2015 – Jun 2016):

* Role: Freelance Team lead / Project manager for five developers
* Scope: project concept and specification design – scrum/agile sprint planning – client coordination – user training
* Technologies: Python, Django, Angular, HTML, CSS, MySQL, Docker
* Achievements:
  + Managed to go forward with rapid iterations of features despite unpredictable part-time availability of remote developers for the project.
  + Stayed below planned work hours for six months despite high amount of new feature requests by client.
  + Taking over technical director’s responsibilities towards end of project.

### Signage and device management for set-top-boxes (Oct 2013 – Apr 2015):

* Role: Freelancer Engineer
* Scope: Developing IPTV middleware + set-top-box frontends – live tv transcoding – mass device socket control – client server deployment + administration – peer coaching
* Technologies: Python, Django, HTML, CSS, Angular, Backbone.js, MySQL, bash
* Achievements:
  + Within 14 days of receiving incomplete source code of set-top-box supplier I made myself familiar enough with Backbone.js to link it with our Python/ Django backend API and IPTV multiplexing system for a successful demo with a prospective client.
  + Successful transition to REST API consumable by devices of various manufacturers.

### Medical staff and expense planing tool (Oct 2012 – Sep 2013):

* Role: Freelance Engineer
* Scope: developing extensive Django web application including health staff and operation planning, expense reporting and healthcare surveying for 10,000s of staff in 1000s of sites plus mobile teams.
* Technologies: Python, Django, HTML, CSS, jQuery, MySQL, bash

## Education

* B.Sc. in Online Media, 2006 - 2010 Hochschule Furtwangen University, Germany Courses included web applications, software project management, programming, intercultural communication, media technology, communication and business studies.
* Exchange semester at the University of Macau, China (2009 - 2010)
* Python 4: Advanced Python, grade A, University of Illinois, USA (2012)

## Tech Experience

| Programming | Years |
| --- | --- |
| Python | 13 |
| Bash | 8 |
| JavaScript | 8 |

| Frameworks / Libraries | Years |
| --- | --- |
| Django | 13 |
| FastAPI | 4 |
| SQLAlchemy | 6 |
| Pydantic | 4 |
| pytest | 8 |
| jQuery | 6 |
| Vue.js | 2 |
| Angular | 2 |

| Frontend Layout | Years |
| --- | --- |
| HTML | 8 |
| CSS | 8 |
| jinja2 | 7 |
| HTMLX | 1 |

| Database Systems | Years |
| --- | --- |
| MySQL / MariaDB | 13 |
| SQLite | 4 |
| Postgres / PostGIS | 4 |

| Server / Infrastructure | Years |
| --- | --- |
| GitHub CI/CD / Pipelines | 4 |
| GitLab CI/CD / Pipelines | 6 |
| Ansible | 6 |
| Helm | 2 |
| Kubernetes | 2 |
| Docker | 5 |
| Azure | 4 |

| Azure Cloud Services | Years |
| --- | --- |
| Functions | 4 |
| MariaDB | 4 |
| CLI | 2 |
| Active Directory | 3 |
| Token Auth | 4 |
| Blob Storage | 3 |
| Logic Apps | 1 |

| Project Management | Years |
| --- | --- |
| Team Lead | 4 |
| Jira | 6 |
| B2B Client Communication | 4 |
| Specification Design | 4 |

| Communication | Years |
| --- | --- |
| Ajax | 8 |
| WebSockets | 1 |
| gRPC | 1 |

| Machine Learning | Years |
| --- | --- |
| Keras | 1 |
| PaddleOCR | 1 |

| Data Analysis | Years |
| --- | --- |
| Pandas | 4 |
| numpy | 4 |

## Spoken languages

| Language | Level |
| --- | --- |
| German | mother tongue |
| English | fluent (IELTS Academic band 8 out of 9) |
| Spanish | advanced (B2) |