

Shpetim Gashi

Software Developer & Data Scientist

CONTACT

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ABOUT

I deliver end-to-end solutions combining web development and machine learning: database-backed applications (Python backends, React/Next.js frontends) and ML systems (forecasting, reinforcement learning, optimisation). I have led an applied AI research project from requirements and method selection through experimentation and evaluation. Currently completing an M.Sc. in Data Science and Intelligent Analytics.

LANGUAGES

- German (C2)
- English (C1/C2)
- Albanian (C1)
- French (B2)

TECHNICAL SKILLS

PROGRAMMING LANGUAGES

Python · TypeScript · JavaScript · SQL

BACKEND

Flask · REST APIs · Node.js · Streamlit

FRONTEND

React · Next.js · TypeScript

MACHINE LEARNING & AI

Time-Series Forecasting · LSTM · SARIMA · Reinforcement Learning (PPO) · TensorFlow · PyTorch · pandas · NumPy · Feature Engineering · Optimisation (PuLP)

DATABASES & DATA

PostgreSQL · Data Pipelines · Power BI · EDA · Statistical Validation

TESTING

pytest · pytest-cov · Playwright · Vitest

DEVOPS & TOOLING

Git / GitLab · CI/CD · Docker · Jira · Confluence · Scrum · GitHub Issues

Experience

Software Developer, Data Scientist & Project Lead

Sept 2025 - May 2026

HELLA InnovationLAB · Lienz, Austria

- Built and maintained database-backed web applications end to end - server-rendered Python (Flask) applications, and separately React/Next.js (TypeScript) frontends - covering REST APIs, authentication flows and relational persistence.
- Developed forecasting and reinforcement-learning prototypes (Python, PyTorch, TensorFlow) and built reproducible evaluation pipelines with clear result traceability and KPI-based benchmarking.
- Designed and ran simulation-based reinforcement-learning experiments for building-technology control, covering environment design, agent training, experiment tracking and evaluation.
- Led an applied AI research project: shaped requirements and roadmap, and ran agile delivery with Jira, Confluence, sprint planning and CI/CD.
- Containerised services with Docker, maintained CI/CD pipelines, and conducted code reviews using Git/GitLab and merge requests to ensure reliability and maintainability.

Junior Developer & Data Scientist (Dual Study Programme)

Sept 2022 - Aug 2025

HELLA InnovationLAB · Lienz, Austria

- Developed time-series forecasting models and evaluation pipelines (Python, pandas, NumPy, TensorFlow), comparing neural and classical statistical approaches against baselines.
- Built Power BI dashboards for product and usage analytics, translating operational data into stakeholder-facing reporting.

Student Representative & Chairperson

Sept 2022 - Jun 2026

MCI & University of Applied Sciences Kufstein · Innsbruck / Kufstein, Austria

- Chaired governance meetings, defined agendas, and documented strategic decisions at programme and institutional level across MCI and UAS Kufstein.

Working Student - SAP Data Migration

Jan 2022 - Oct 2022

Vienna Insurance Group AG · Vienna, Austria

- Migrated large volumes of insurance records between SAP systems, ensuring data quality and consistency throughout the platform transition.
- Entrusted with coordinating and supervising 8 working students, allocating tasks due to strong individual performance.

Technical Consultant

Oct 2020 - Sept 2021

Deutsche Technikberatung · Germany

- Analysed customer requirements and delivered structured technical solutions in direct customer-facing settings; produced documentation and achieved a 9.6/10 average customer satisfaction rating.

Salesperson & Team Assistant

Mar 2013 - Oct 2020

IKEA Germany · Germany

- Co-managed teams of 9-18 and supported KPI monitoring and operational planning across multiple departments.
- Led a restructuring project that reduced operational costs by 10% and increased seasonal sales by 25%.

Selected Projects

Reinforcement Learning for Building-Control Research

Simulation-based reinforcement-learning experiments for control problems in building technology. PPO agents trained with stable-baselines3 and Gymnasium, Radiance-based simulation tooling for the environment, and TensorBoard for experiment tracking - with simulation assumptions and limitations kept explicit.

Python · Reinforcement Learning · PPO · stable-baselines3 · Gymnasium · Radiance · TensorFlow · PyTorch

Manufacturing Optimisation & Scenario Planning

Decision-support tool that formulates a constrained manufacturing problem as a linear program in PuLP and exposes scenario analysis through Streamlit and Flask interfaces. Packaged with PyInstaller to run without a Python installation, with the optimisation logic covered by pytest.

Python · PuLP · Streamlit · Flask · pandas · NumPy · Plotly · Altair · scikit-learn · pdfplumber · PyInstaller · pytest

Structured Comfort Feedback Platform

A university software-engineering project built around a real-world building-technology use case: a maintainable Flask application for collecting and managing structured user feedback, covering authentication and role handling, PostgreSQL persistence, administrative workflows, REST integration, automated testing, containerisation and CI/CD.

Python · Flask · Jinja2 · SQLAlchemy · Alembic · PostgreSQL · REST API · Flask-WTF · Docker · Docker Compose · pytest · pytest-cov · Playwright · GitLab CI/CD

Product Configuration & Augmented-Reality Platform

Customer-facing platform for configuring products and visualising them in augmented reality. Contributed across UI/UX and user flows, authentication, database-backed features, CI/CD and quality review, in a TypeScript/Node stack. Agentic coding workflows were used with human review before integration.

Next.js · React · TypeScript · Node.js · Vercel · CI/CD

Demand Forecasting & Model Benchmarking

Time-series forecasting pipeline built in two passes: ARIMA/SARIMA baselines with statsmodels first, LSTM models in TensorFlow/Keras about a year later. Evaluation was baseline-oriented throughout, asking whether the added model complexity was justified at all.

Python · TensorFlow · LSTM · statsmodels · SARIMA · pandas · NumPy

Education

M.Sc. Data Science and Intelligent Analytics

Sept 2025 - Present

University of Applied Sciences Kufstein · Kufstein, Austria

Certificate - Agile Project Management (Scrum)

Dec 2024 - Jan 2025

Management Center Innsbruck · Innsbruck, Austria

Certificate - Data Science Summer School

Jul 2023 - Aug 2023

Management Center Innsbruck · Innsbruck, Austria

B.Sc. Smart Building Technologies

Sept 2022 - Jul 2025

Management Center Innsbruck · Innsbruck, Austria

Thesis: *Data-Driven Building Modelling*

High School Diploma (Abitur)

Sept 2004 - Jun 2013

Friedrich-List-Gymnasium · Germany