

Jakub Durczok

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Portfolio: durczok.ovh
Languages: Python · SQL · R · C++

SUMMARY

Lead Software Engineer building and leading teams that deliver scalable data, ML, and AI products used across 30+ global markets by a Fortune 50 FMCG leader. Core backend expertise in Python, Spark, SQL, and Azure with deep knowledge of Django, PostgreSQL, REST APIs, and distributed systems.

EXPERIENCE

Procter & Gamble Warsaw, Poland
Lead Software Engineer – Data & AI October 2025 – Present

- **Built an engineering platform covering 130 customers and terabytes of data** by designing a SOLID-based connector architecture on Databricks and Kedro with strategy pattern for SAP, Oracle, and PostgreSQL.
- **Unified schema management across 5 backends** (Unity Catalog/Local/Memory/Oracle/PostgreSQL) by developing a database schema abstraction layer in Python with time-travel queries and SCD 2 logic.
- **Engineered a “code chain” library with guaranteed O(n) time complexity** by building a REST API server and NetworkX DAG engine to transform and process product code changes for time series ML in Python.
- **Cut weekly effort by 12 hours across 7 projects** by building an agentic AI app on Django and LangGraph; benchmarked 4 LLMs across 3 retrieval datasets and 3 vector stores (Chroma, PostgreSQL, FAISS) to optimize a RAG pipeline integrated with Jira and ServiceNow APIs for ticket analysis and knowledge base management.
- **Achieved >\$200,000/year in savings** by building an insourced engineering team and deploying an autonomous L1 support agent on LangGraph that monitors Databricks jobs, diagnoses failures, and escalates via Teams.
- **Led the company-wide migration of Azure email auth from SMTP to OAuth 2.0** for a shared ML/DE framework used by hundreds of engineers across hundreds of projects by refactoring the core notification module and coordinating rollout.

Software Engineer – Data October 2022 – September 2025

- **Scaled a demand-forecasting ML product from 30 to 110 customers** while improving reliability to 100% by optimizing Spark pipelines in Python/PySpark and implementing MLOps and CI/CD gates.
- **Saved 6 FTEs of operations effort** by developing a distributed Django web app in Python with custom concurrency controls and Redis caching to prevent race conditions.
- **Cut I/O-bound SAP API latency by 90%** by building a Python SDK for concurrent data retrieval and async processing.

Accenture Warsaw, Poland
Engineer – Salesforce July 2022 – September 2022

- **Delivered a CRM system MVP in 3 months** on Salesforce for a car dealership by configuring end-to-end vehicle, client, and repair tracking workflows.

Wiktoria Kos Consulting Warsaw, Poland
Engineer – SAP HCM June 2021 – June 2022

- **Delivered zero-defect payroll for 10,000+ employees** across Germany, Austria, and Switzerland and de-risked a multi-million euro SAP S/4HANA migration by building a custom ABAP master data validation tailored to client’s needs.

PROJECTS

Warehouse Management System – Hackathon Winner (2025): Optimized donation logistics for a childhood cancer charity by building a full-stack system in Python (Django).

Vendor Manager – Thesis Project (2023): Reduced manual resource administration by developing a web app in Python (Django) for automated contract and cost tracking.

EDUCATION

SGH Warsaw School of Economics Warsaw, Poland
Master of Arts, Advanced Analytics – Big Data October 2023 – July 2025

Summa cum laude | GPA: 4.96/5

Coursework: Python, R, C++, Real-Time Analytics (PySpark, Spark Structured Streaming, Docker, Flask), Database Systems (SQL, PL/SQL), Data Visualisation (R, Shiny, Power BI), Credit Scoring (SAS).

Bachelor of Arts, Quantitative Methods in Economics and IT October 2020 – July 2023

Summa cum laude | GPA: 4.95/5 | Ranked First in Class

Coursework: Statistical Methods, Database Systems (SQL Developer), Econometrics, Operational Research.

TECHNICAL SKILLS

AI & ML: LangGraph, RAG Architecture, MLOps, Spark/PySpark, Kedro, Kafka, Airflow.

Cloud & Infrastructure: Databricks (Asset Bundles, Unity Catalog), Azure, Docker, Terraform, Kubernetes.

Backend & DevOps: Django, RESTful APIs, Streamlit, CI/CD (GitHub Actions), PostgreSQL, Redis.

CERTIFICATIONS & LANGUAGES

English (C2), German (C2), Polish (Native).

[Databricks Data Engineering Professional](#) (2026), [Databricks Data Engineering Associate](#) (2024), [Azure AZ-900](#) (2023).