

FARRUH SHERIPOV

AI/ML Software Engineer

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ABOUT ME

Results-driven **AI/ML Engineer** with a strong backend foundation and deep specialization in **Natural Language Processing (NLP)** and **Large Language Models (LLMs)**. Proven ability to deliver **production-grade AI systems**—from model fine-tuning and evaluation to scalable deployment in cloud-native environments.

Expert in designing and implementing **Retrieval-Augmented Generation (RAG)** pipelines using **Haystack**, **LangChain**, and **LlamaIndex**, with experience deploying performant vector search systems using **FAISS**, **Qdrant**, and **ChromaDB**. Skilled in evaluating LLM performance with **RAGAS** and explanation-based scoring methods to ensure robustness and factual accuracy.

Led fine-tuning initiatives on **transformer-based models** (e.g., BERT) for **Named Entity Recognition (NER)** and **PII redaction**, integrating **Hugging Face Transformers** and **Microsoft Presidio** into secure document anonymization pipelines. Adept at building end-to-end ML workflows, from preprocessing and labeling to training, deployment, and monitoring.

Complemented by strong backend engineering expertise with **Python**, **Django**, **FastAPI**, and **SQLAlchemy**, and infrastructure automation using **Terraform**. Experienced in working across **GCP**, **AWS**, and **Docker/Kubernetes** environments to ensure scalable and secure ML deployments.

A hands-on technologist with a full-stack mindset and a proven record of cross-functional collaboration, delivering AI solutions that are both **technically sound** and **business-aligned**.

LANGUAGES

English (Superior/Native) Russian (Superior/Native) Turkmen (Superior/Native)

EDUCATION

Bachelors, Information Technology (IT) Software Development, Belarusian National Technical University, Belarus | 2017

During my university studies, I gained a solid foundation in both theoretical and applied computer science. The curriculum combined core programming skills with practical applications in software engineering, databases, and security.

Key Focus Areas:

- Programming Languages:** Learned and practiced **Python**, **C++**, and **C#**, applying them to a range of academic projects and lab assignments.
- Databases:** Studied **relational database design**, **SQL querying**, and **Microsoft SQL Server**, building database-backed applications.
- Cybersecurity:** Explored fundamentals of **encryption and decryption algorithms**, with a focus on data privacy and secure communications.
- Software Engineering:** Developed a clear understanding of **Object-Oriented Programming (OOP)** principles and applied them in multiple languages.
- Team Projects:** Participated in group-based coursework that simulated real-world software development environments, fostering collaboration and version control best practices.

This education provided the foundational knowledge and skills that I later applied to develop production-grade systems in both backend and machine learning engineering roles.

WORK EXPERIENCE

S3 Senior Backend Developer | mühleemann+popp AG | Poland | Sep 2024 - Present

- Designed and deployed a secure microservice architecture** using Django and FastAPI, enabling scalable and maintainable backend systems across multiple projects.
- Integrated advanced NLP models** (e.g., BERT-based) for PII detection, achieving over **95% accuracy** in identifying sensitive information within unstructured text.
- Implemented Retrieval-Augmented Generation (RAG) pipelines** utilizing Haystack and LangChain, reducing information retrieval latency by **40%**.
- Optimized vector search operations** by integrating FAISS and Qdrant, enhancing query performance by **30%**.
- Automated infrastructure provisioning** with Terraform on GCP, decreasing deployment times by **50%** and ensuring consistent environments.
- Established comprehensive evaluation workflows** using Ragas, facilitating continuous monitoring and improvement of AI model performance.

S2 Professional Python Developer | mühleemann+popp AG | Poland | Jul 2022 - Sep 2024

- Led the development of a blockchain-based payment system** for a crowdfunding platform, enabling secure transactions with smart contracts and supporting cryptocurrency payments.
- Integrated with OchainLabs** to manage on-chain transactions, providing real-time event tracking and enhancing transparency for over **10,000 users**.
- Developed RESTful APIs** using Django REST Framework, supporting core functionalities such as campaign management and transaction processing.
- Implemented secure authentication mechanisms** including JWT and two-factor authentication, improving platform security and user trust.
- Optimized database queries and indexing**, resulting in a **60% reduction** in data retrieval times and enhancing overall system responsiveness.
- Collaborated in DevOps processes**, configuring Kubernetes deployments and managing CI/CD pipelines to ensure smooth application delivery.

Python Developer | Lyte | Minsk | Apr 2022 - Jul 2022

- Enhanced existing backend features** and **optimized performance** for Lyte's event ticketing platform, contributing to a **15% improvement** in page load times.
- Refactored legacy codebases**, reducing technical debt and facilitating easier future maintenance and scalability.
- Collaborated with cross-functional teams** to implement new functionalities, improving user engagement and satisfaction.

S1 Professional Python Developer | mühleemann+popp AG | Minsk | Jan 2021 - Apr 2022

- Spearheaded backend architecture design and implementation** using Django and Django REST Framework, resulting in scalable, maintainable platforms used in production for over **3 years**.
- Engineered event-sourced data models** to fully capture and replay historical states of complex entities, enabling users to query any point-in-time configuration with **100% data accuracy**.
- Optimized PostgreSQL performance** via materialized views and advanced SQL, reducing query response times by **up to 70%** and ensuring consistent low-latency analytics.
- Developed real-time and scheduled data pipelines** integrating with external APIs (Jira, GitHub, GitLab, Tempo, Slack, Confluence), synchronizing **millions of records** with high reliability.
- Built end-to-end data orchestration layer** using Google Cloud Pub/Sub, enabling parallel ingestion and transformation of heterogeneous data streams across services.
- Designed logic to compute and monitor** productivity, workload distribution, and estimation accuracy, helping users detect resource imbalances and track KPIs in real-time.
- Led all DevOps efforts** by independently deploying and maintaining cloud infrastructure on **Google Cloud Platform** (App Engine, Cloud Run), ensuring system uptime, autoscaling, and observability without downtime.
- Created seamless integration** between historical data and physical models catalog, enabling users to match real-world items to system entities with **visual and technical precision**.
- Continuously supported and improved live systems**, delivering updates, debugging data flows, and expanding functionality across multiple modules over a span of **3+ years**.

Head Of Technical Department | LLC "ESC" | Minsk | May 2018 - Sep 2020

- Led start-up efforts to build a new department from scratch • In charge of 22 technical specialists
- Every-day tasks included training, supervising, coordinating employees' work
- Collaborated with purchasing and customer service departments to provide high-level customer service • Resolved escalating technical issues

SKILLS

- Natural Language Processing (NLP) Multilingual NLP Named Entity Recognition (NER) Hugging Face Transformers (incl. Fine-Tuning)
- RAG pipelines RAGAS (Evaluating LLM Applications) Vector Databases: FAISS, Qdrant, ChromaDB Machine Learning (General)
- Python Ecosystem & Data Processing: Python, Pandas, NumPy, Celery, SQLAlchemy
- Backend Development & APIs: Django, FastAPI, Flask, RESTful Web Services, API Development
- Databases & Data Engineering: SQL / NoSQL, PostgreSQL, MongoDB, SQLite, ClickHouse, Firestore
- DevOps & Cloud Infrastructure: Docker, Kubernetes, Terraform, CI/CD, GCP (Cloud Run, Pub/Sub, Cloud Functions, Firestore, etc.), AWS, Firebase
- Frontend & Full-Stack Development: JavaScript, Vue.js, React, Vite, Nuxt Blockchain & Web3: Web3, Blockchain (Smart Contracts, Crypto Integration)
- Leadership & Management: Technical Staff Management, Managing Technical Personnel, Department Supervision, Executive Team Collaboration, Hands-on Technical Leadership