

Artur Tsarikovich

Python Backend Engineer

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SUMMARY

Experienced **Backend Engineer** with over 7 years of experience building scalable, data-intensive systems and cloud-native architectures. Strong background in backend development, distributed computing, and automation of machine learning workflows across AWS environments.

Combines deep technical expertise with a systems-level perspective — designing robust pipelines from data ingestion to model deployment, optimizing performance, reliability, and cost efficiency at scale.

Known for writing clean, maintainable code and approaching problems with precision, structure, and long-term thinking. Values clarity, collaboration, and engineering discipline in delivering production-ready solutions that stand the test of scale and complexity.

PROFESSIONAL EXPERIENCE

01/2024 – Now

London, England

Backend Engineer, *Precisify*

Precise TV uses context-aware ad intelligence to help global brands reach audiences more effectively. Its platform analyzes millions of videos to detect “precise moments” that align with user interests, powering scalable, brand-safe, and data-driven advertising.

- Designed and deployed production-grade ML inference pipelines powered by AWS Bedrock (Claude, Titan) and integrated OpenSearch vector search (KNN/HNSW, Titan Embeddings 1024-dim) for semantic video relevance ranking.
- Automated the end-to-end ML lifecycle — from data extraction to retraining and index updates — using EventBridge + Step Functions, eliminating manual intervention and improving pipeline reliability by ~70%.
- Built cost-efficient LLM prompt caching and evaluation logic, cutting Bedrock API usage costs by 45% while improving response consistency.
- Enhanced observability and model performance tracking with Prometheus and CloudWatch metrics for latency, cost, and embedding throughput.
- Defined and executed the ML infrastructure roadmap, enabling reproducible, scalable pipelines that power Precise TV’s intelligent ad-serving platform in production.

03/2023 – 12/2024

London, England

Backend Engineer (Data Infrastructure), *Precisify*

- Architected event-driven data pipelines on AWS ECS, Lambda, and EventBridge, automating ingestion and processing of millions of video metadata records daily with full fault tolerance.
- Redesigned the company’s Redshift–DynamoDB data layer, reducing analytical query time by 2.5× and cutting storage overhead by 18%.
- Implemented async and multiprocessing orchestration for large-scale batch workloads, increasing system throughput by 6× while maintaining stable latency under load.
- Built zero-downtime deployment workflows via GitLab CI/CD and Docker blue-green strategies, cutting release time from hours to minutes.
- Mentored and upskilled junior engineers, standardizing internal development practices and raising the overall engineering quality bar.

05/2021 – 03/2023

Tbilisi, Georgia

Backend Developer, *NATS Trading CO*

NATS specializes in algorithmic hedge fund strategies, using advanced mathematical models and data analysis for precise financial decision-making.

- Engineered and maintained an automated trading backend integrated with the Binance API, ensuring sub-second order execution and real-time portfolio synchronization across multiple trading pairs.
- Optimized market data ingestion and signal generation pipelines, processing over 5M price updates daily with asynchronous and multiprocessing architectures, improving execution latency by ~45%.
- Developed a robust risk management and trade execution layer, reducing failed order rates by 30% and improving capital allocation precision through adaptive position sizing.
- Enhanced data integrity and analytical performance in PostgreSQL, introducing partitioned historical storage and indexed metrics tables to accelerate model backtesting.
- Implemented real-time monitoring dashboards with Prometheus and Grafana, enabling instant visibility into strategy PnL, latency, and system health across all live trading sessions.

11/2020 – 05/2021
Bangkok, Thailand

Backend Developer (promoted), ListingSPY

Listing SPY is a crypto intelligence platform that aggregates token listings, IDO calendars, and DeFi project data from multiple exchanges, providing real-time insights and alerts for traders and investors.

- Developed and deployed scalable backend APIs for token listing aggregation, enabling real-time synchronization of data across multiple crypto exchanges and improving platform uptime to 99.9%.
- Implemented CI/CD pipelines and containerized infrastructure using Docker and GitLab, reducing deployment errors and release time by 80%.
- Optimized system performance through async processing and multiprocessing, increasing request handling capacity by 6× while maintaining stable response times under load.
- Introduced structured development practices, including code reviews, unit testing, and Scrum workflows, cutting technical debt and stabilizing delivery cycles.
- Mentored an intern to deliver a production-ready data ingestion module, now part of the platform's live data processing stack.

12/2018 – 11/2020
Bangkok, Thailand

Backend Developer, ListingSPY

- Migrated legacy Flask services to FastAPI, reducing infrastructure costs and improving API response times by 30%.
- Developed automation scripts in Bash for data ingestion and environment bootstrapping, improving deployment consistency across environments.
- Built a Telegram-based reporting system for automated job monitoring and error notifications.
- Configured Cron-based process scheduling on Ubuntu to automate recurring maintenance and ETL tasks.

EDUCATION

09/2020 – 03/2024 **ITMO University,**
Saint Peterburg, Russia *Information Technologies and Programming Faculty, Computer Science*

SKILLS

ML-Ops engineering | **LLM prompt caching** | **Event-driven architecture** |
Binance API integration | **Team leadership** | **OOP and design principles** | **Collaboration** |
Presentation skill | **Research** | **Asana, Jira, Trello** | **Python** | **AWS: ECR • ECS • EC2 • Lambda •**
Open Search • Event-bridge • DynamoDB | **FastAPI** | **Flask** | **Celery** | **Pandas** | **DRF** | **Redis** |
Linux | **Git, Github, Gitlab** | **Docker** | **Nginx** | **Kubernetes** | **PostgreSQL** | **MongoDB** |
Alembic | **Unit testing** | **Async IO** | **Multiprocessing** | **Go** | **AWS cdk build pattern**

Languages

English (Professional) | Russian (Native)