

# DENIS O. VODOPIANOV

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## ABOUT

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Software engineer with a decade of experience specializing in distributed systems, with a focus on scalability, reliability, and performance. I have experience moving from monoliths to microservices to scale a business and back to microliths to optimize cost and performance.

I enjoy solving various system problems as well as low-level algorithmic challenges. My key strengths include analytical thinking, empathy, a strong bias for action, ownership, and a focus on customer needs.

## SKILLS

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Programming Languages:	Kotlin, Java, Scala, Python, Go, Typescript
Web Frameworks:	Spring Boot, Vert.x, Netty, Play, Express.js
DevOps:	Docker, Kubernetes, Terraform, Ansible, Jenkins, Gitlab CI/CD, Argo CD, Datadog, ELK stack, Grafana, Prometheus
Databases:	Postgres, Mongo, DynamoDB, Cassandra, Redis
Networking:	TCP/IP, HTTPS, WebSockets
Big Data:	Hadoop, Hive, Pig, Hbase, Clickhouse, Storm, Spark, Airflow

## WORK EXPERIENCE

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<b>Trade Republic Bank</b> <i>Senior Software Engineer</i>	October 2023 - April 2024 Berlin, Germany
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- Was in charge of user accounts and balances. Made system consistent, fast, and highly available.
- Resolved integration issues, and delivered a system required for Cards product launch.
- Identified and fixed slow spots, reduced response latency from 20 to 5 ms.
- Built a reconciliation system that processes 150M transactions daily to keep banking data consistent.

<b>Picsart</b> <i>Senior Software Engineer II (Lead Engineer) - Data Platform</i>	January 2022 - March 2023 Berlin, Germany
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- Owned user tracking component in analytics platform handling billions of events per day, peak 200k eps.
- Implemented edge component with auth and back-pressure mechanisms for analytics platform using Envoy-based API gateway.
- Optimised event ingestion, reduced fleet by 40% and freed up resources.
- Reduced change failure rates by adding quality checks, tests, feature-flags and alerts.
- 10x faster deployments by switching to trunk-based development, reusable CI/CD components.
- Mentored engineers, improved ownership, quality, reduced debt.

<b>N26 GmbH</b> <i>Senior Software Engineer - Identity, Acting Tech Lead</i>	March 2020 - January 2022 Berlin, Germany
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- Full ownership of identity platform with focus on security, scalability, reliability and compliance.
- Implemented strong customer authentication for PSD2 compliance.
- Worked with product and ML on R&D projects, creating a roadmap to improve security of the platform.
- Automated access recovery for non-German customers, improving UX and cutting costs.
- Designed and implemented various authentication mechanisms for n26 products.
- Participated in on-call and incident response, addressing issues and minimizing downtime.

<b>Freelance, Contractor</b> <i>Lead Software Engineer at Plutus.ai</i>	November 2018 - February 2020 Saint-Petersburg, Russia
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- Led a team of five engineers to deliver casual crypto portfolio with gamification and social elements.
- Identified and resolved scalability issues to meet the demands of a growing client base.
- Switched system from batched to NRT data processing, enhanced gamification mechanics.
- Built framework for fast integration with exchanges and news outlets.

<b>Multiple companies</b> <i>(Senior) Software Engineer</i>	May 2012 - November 2018 Saint-Petersburg, Russia
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- Started career at a small ad startup, implemented several statistical models to improve CTR for ad campaigns.
- Joined the Java Test division at Oracle and helped release Java 8 and multiple Java 6/7 versions.
- Successfully delivered product features in various projects in ad tech, telecom, and fintech fields.

## EDUCATION

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### ITMO University

Saint-Petersburg, Russia

September 2004 - February 2010

**Degree:** Master's degree in Optical Electronic Devices and Systems with specialisation in Optical-Electronic Devices and Systems for Video Information Processing

**Qualification:** Engineer

## PROJECTS

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### Indoor cycling HUD

<https://github.com/grambbledook/indoor-cycling-hud>

**Tools:** C++, Bluetooth Low Energy, QT, sqlite, CMake, vcpkg

**Description:** An overlay app that aggregates data coming from BLE devices and renders workout statistics on the heads up display