

# Nikita Vanyasin

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- **12+ years of Software Engineering** experience
- Collaborated directly with **stakeholders** as a **freelancer/consultant**
- Academic researcher (**PhD**), mentor, delivered university lectures
- **Co-founded and led** a small business from inception to over **2600+** paying users
- Background in **Database optimization**, **High-performance cloud platforms** and building **data-intensive applications**

## Experience

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|--|--|----------------------------|
| <b>Senior software engineer</b>  | <b>ArangoDB</b> (remote)                 | <b>Feb/2022 - Feb/2024</b> |
| <ul style="list-style-type: none"><li>◦ Integrated <b>Machine Learning</b> components into the <b>Kubernetes operator</b>, enabling users to save up to 30% costs when running ML tasks on their on-prem deployment.</li><li>◦ Proposed the design and implemented a tool for migrating on-prem installations to <b>managed cloud solution</b>, allowing to convert more clients to paying customers.</li><li>◦ Initiated and accomplished the redesign and rearrangement of Operator <b>documentation</b> to eliminate duplication and make it more <b>user-oriented</b>.</li><li>◦ Automated the creation of <b>OpenAPI</b> validation schemas for <b>Kubernetes CRDs</b>, reducing manual efforts.</li><li>◦ Come up with an idea and upgraded the "DC to DC cluster synchronization" tool to use a newer version of <b>DB-driver</b> resulting in more robust and memory-efficient communication between components.</li><li>◦ Established unified approach for PR checks and <b>CI/CD</b> pipelines for all five main <b>Golang</b> projects, increasing code quality and speeding up the release cycle.</li><li>◦ Optimized <b>leader election</b> mechanics for <b>Go</b> projects, utilizing a new polling <b>API</b> to reduce resource consumption and lower the load on DB servers.</li><li>◦ Initiated the addition of automatic security vulnerability scanning for all five <b>Golang</b> projects using <b>govulncheck</b>, enhancing the <b>security</b> of built artifacts.</li></ul> |  |                            |
| <b>Senior Software Engineer</b>  | <b>CloudRadar</b> (part-time, remote)    | <b>Mar/2019 - Dec/2021</b> |
| <ul style="list-style-type: none"><li>◦ Working mostly on <b>server-monitoring</b> software, I managed to refactor legacy code while optimizing the performance of metrics collection.</li><li>◦ Designed and built a novel tool to set up <b>remote tunnels</b> to servers in security-tightened environments. Acquired by <b>RealVNC</b>.</li><li>◦ Established <b>CI/CD</b> pipelines, packaging and delivering binaries (deb, rpm, windows), saving 10 human hours monthly.</li><li>◦ Suggested and implemented async job execution and monitoring, empowering customers to track <b>metrics</b> and create <b>alerts</b> for scheduled tasks.</li></ul>   |  |                            |
| <b>Freelancer</b>  | <b>self-employed</b> (part-time, remote) | <b>Mar/2018 - Jan/2022</b> |
| <ul style="list-style-type: none"><li>◦ Gained experience of <b>communicating with stakeholders</b>, gathering requirements, and resolving conflict situations. At the same time, created many projects in different fields, broadening my skill set: <b>Docker</b> Volume Plugin for <b>LVM</b>, Suppliers ordering system (Node.js, Go), High-performance web-crawler (Go), Mattermost plugin (Go), and others involving <b>Kubernetes</b>, <b>nginx</b>, <b>Linux</b>, <b>CI/CD</b>, and <b>Protobuf</b>.</li></ul>   |  |                            |
| <b>Lecturer/tutor</b>  | <b>Local universities</b> , Yoshkar-Ola  | <b>Sep/2015 - Jan/2018</b> |
| <ul style="list-style-type: none"><li>◦ Delivered lectures on <b>Database Programming &amp; Information Retrieval</b>, Software Development Management (<b>Agile &amp; Scrum</b>), and an introductory course for first-year students. Over 80% of attendees are now employed in international companies.</li><li>◦ <b>Organized</b> multiple nationwide Olympiads in informatics using open-source software.</li></ul>  |  |                            |

- **Mentored newcomers** and **spoke** at internal meetups; four of my five mentees secured permanent contracts.
- Led a small team to integrate the Webinars platform (**WebRTC**), boosting upsell for existing customers.
- Designed the 'Webinar Recording' feature, enabling the saving of sessions in a playable format.
- Automated the release process using **TeamCity** and **Fabric**, saving ~20 human hours monthly.
- Optimized a permission access system for served files (**OpenResty+Lua**), leveraging **Redis**-stored permissions to significantly reduce response time.
- **Designed and implemented** iSpring Content Library backend, powering the "Content Library" feature.
- Developed backend **.NET** service for OS-independent processing of MS Equation files.
- Rewrote hundreds of test cases using **Codeception**, adding **E2E** tests, and reducing escaped defects.
- Optimized backup tool for main product sites, significantly **speeding up** the process.
- Reworked the hierarchical permissions system for shared files access using **closure-table** approach which resulted in higher RPS and lower resource usage.
- Implemented video transcoding using **AWS** Elastic Transcoder / SNS / S3, reducing infrastructure costs.
- Enhanced in-browser data recovery system for user statistics, reducing data loss.
- Implemented **full-text search** using Sphinx, enhancing user satisfaction.

## Side-projects

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- **breezly.ru** - platform for UX/UI design education. Co-founder, complete technical execution. Started as a hobby project, it now educates 2600+ paying customers in UX/UI skills.
- **Open-source**: occasionally **contributing** to Golang compiler and some popular go packages.

## Education

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**Mari State Technical University (Volgatech)**

Yoshkar-Ola, Russia

PhD, Computer Science

2015 - 2020

**Mari State Technical University (Volgatech)**

Yoshkar-Ola, Russia

Combined Master's and Bachelor's degree (5 years), Computer Science

2010 - 2015

## Publications

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- **Model and algorithms of Integrated Development Environment with structure editor for software source code**  
*PhD thesis, 2020*
- **Hierarchical Semantic Database Structure of the E-Learning Systems**  
Chapter 24, Nikita Vaniasin  
*Handbook of Research on Estimation and Control Techniques in E-Learning Systems, 2016*

## Skills

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**Programming Languages:** Go, Python, PHP, C, C#, Java, Lua, C++, JS/TypeScript/HTML/CSS.

**Databases and search:** MySQL, PostgreSQL, Redis, MongoDB, ArangoDB, DynamoDB, Sphinx, Elastic Stack.

**Tools and Frameworks:** Kubernetes, Docker, Jaeger, Apache Kafka, Nats.io, envoy, nginx / openresty, ansible, Zabbix, Grafana, Prometheus, WebRTC, GRPC.