

Andrey Turbov

Software Engineer | DevOps | SRE

6 years

Contact

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Software and operations engineer with a several years of SRE expertise. I possess extensive experience across entire production lifecycle and understand wide range of issues regarding backend/frontend development, high-load infrastructure, QA, operations, incident management and customer perspectives. My experience in an international environment combined with fluent English enables me to get along with foreign co-workers and customers quickly. Self-education is of the highest value for me, which I am always striving for. I appreciate scientific endeavors and enjoy exploring world of abstract ideas. I aim to further develop my skills in software engineering, architecture design and distributed systems. My primary career goal is to acquire expertise in technologically advanced domains with a focus on reliability and social impact such as finance, healthcare, telecommunications, automotive, education, hardware, OS development and Research & Development (R&D) departments.

Employment

Freelance (Cmakify, GatewayFM)

Software Engineer

Jul 2023 — Present

Tbilisi

- Developed initial platform prototype for automatic conversion/generation of *CMake* files with *Django/DRF*
 - Collected customer projects *Make* files issues to resolve reduce build system maintainance load
 - Integrated *CMake* files parser into *Django* application to enhance customer current build techniques
- *Django/DRF/ReactJS* service for automated crypto infrastructure deployment to various cloud providers:
 - Implementation of new features and bug reduction via legacy code refactoring
 - Introduced TDD and existing code coverage with *pytest* + CI/CD pipelines configuration
 - Monitoring alerts configuration catching critical application issues such as stale deployments, queues overflow, etc.

JettyCloud (RingCentral)

Release Engineer

Dec 2022 — Apr 2023

Tbilisi

- Design and maintain internal custom *Python* toolchain for mass services release
- Optimization of existing and decommission of redundant instances to cut company operation costs by 15%
- Carry out release preparation cycle including:
 - Deployment of *minor* (120-150 services) and *major* (more than 150 services) releases of RC distributed system
 - Tracing and resolving issues occurred during QA regression cycles
 - Bug reporting and discussion with developers on possible solutions, suggesting possible patches

Apr 2022 — Dec 2022

Site Reliability Engineer

Tbilisi

- Delivery and configuration on high-load microservice production environment with over 30000 servers and instances
- Subsystems support handover from other teams with comprehensive review and presentation for peers
- Tracing and resolving service critical routing issues and telecommunication failures with further RCA
- Collaborated closely with international customers, operations and development teams to achieve 99.999% system reliability
- Deployment processes automation with *Python* toolset

Teknavo (Bloomberg)

DevOps Engineer

Dec 2021 — Apr 2022

St. Petersburg

- Internal Bloomberg CI/CD infrastructure improvement to speed up build and release process
- Build and unit/integration tests automation with *Python*, *CMake*, *GTest* and *pytest*
- *C++* codebase tests coverage and bugfixing

- Design new system architecture for *Python Django* RPA platform with UML
- Refactoring of a legacy *Django/DRF/Celery/Flask* backend according to new system design
- Transition from RPC (*RPyC*) protocol to plain REST API to simplify backend-agent communication
- Implemented multiprocessing *Python* RPA agent-side for easy bots management and concurrent execution
- *ReactJS* frontend development and improvements following strict company UI standards
- Introduced TDD practice for both frontend and backend:
 - Frontend unit-test configuration and coverage using *Jest* and *Enzyme*
 - Backend and agent unit-testing with *pytest*, *factory_boy* for data mocking, *pytest-cov* for coverage metrics
 - Organized knowledge sharing sessions on how to properly unit-test components using *pytest*
 - Paired programming sessions with colleagues to help with TDD adoption

- Monthly presentations on international on-site meetings in a large scale project of more than 200 coworkers
- Support for international DEV, QA and SRE teams during full software development lifecycle
- Orchestration solution design and development using *Puppet* and *Puppet Bolt*
- Migration of CI/CD pipelines from *Jenkins* to *GitLab CI*
- Implementation of internal services and utilities such as:
 - *Django/DRF/ReactJS* dashboard web service for project environments
 - *Flask* service for generating delivery instructions for production OPS
 - *Python* CLI utility for complex application configuration management

Education

2014 — 2016

Saint Petersburg State University of Aerospace Instrumentation, Department of Computer Science

2013 — 2014

Peter the Great Saint-Petersburg Polytechnic University, Department of Physics and Astronomy

Used Tools

Programming languages: Python, C++(11/14/17), JavaScript (ES6), Elixir**Frameworks:** Django, Django REST Framework (DRF), Flask, Celery, RPyC, ReactJS**Development utilities:** Git, Bash, core *nix utilities, rpm, dpkg, Sphinx**Operating systems:** Linux (RHEL, Debian, Arch, Gentoo, Exherbo), Windows**Build systems and CI/CD:** Make, Ninja, CMake, Gitlab CI, Jenkins**Cloud and Virtualization:** Docker, k8s/Spinnaker, AWS, Vagrant, VirtualBox, VMware**Infrastructure orchestration:** Ansible, Puppet, Puppet Bolt, Terraform**Monitoring:** ELK stack, Grafana, Prometheus, Zabbix**Databases:** PostgreSQL, OracleDB, Amazon RDS

Other

Languages: advanced English, native Russian**Achievements:** participated in student physics and astronomy conferences/competitions, completed [MIT GSL](#) program on start-up creation from scratch and pitch for venture fund**Hobbies:** [programming](#), [Exherbo Linux](#) distribution maintainance, philosophy and humanity studies, digital art, spider keeping