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, DevOps practices 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

C2C (Cmakify, GatewayFM) Jul 2023 — Present
Software Engineer *Tbilisi*

- Developed initial platform prototype for automatic conversion/generation of *CMake* files with *Django/DRF*
  - Optimized customer project's *Make* files for faster build process and maintenance load reduction
  - Integrated *CMake* files parser into *Django* application to enchance 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) Dec 2022 — Apr 2023
Release Engineer *Tbilisi*

- Designed and managed internal custom *Python* toolchain for mass services releases
- Optimized existing subsystems and decommissioned redundant instances, reducing company operation costs by 15%
- Carry out release preparation cycle including:
  - Deployed *minor (120-150 services)* and *major (more than 150 services)* releases of RC distributed system
  - Traced and resolved issues occurred during QA regression cycles
  - Bug reporting and collaboration with developers on potential solutions and patches

Apr 2022 — Dec 2022
Site Reliability Engineer *Tbilisi*

- Delivery and configuration on high-load microservice production environment with over 30000 servers and instances
- Conducted subsystems support handover from other teams with detailed review and presentation for peers
- Traced and resolved 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) Dec 2021 — Apr 2022
DevOps Engineer *St. Petersburg*

- Improved internal Bloomberg CI/CD infrastructure to accelerate build and release processes
- Build and unit/integration tests automation with *Python*, *CMake*, *GTest* and *pytest*
- Enhanced test coverage and resolved bugs in *C++* codebase

T-Systems (Deutsche Telekom) Jan 2020 — Dec 2021
Software Developer *St. Petersburg*

- 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

Jul 2018 — Jan 2020
DevOps Engineer *St. Petersburg*

- Delivered monthly presentations at large-scale on-site meetings with over 200 colleagues from various countries
- Provided support to international Development, Quality Assurance, and Site Reliability Engineering teams throughout the software development process
- Orchestration solution design and development using *Puppet* and *Puppet Bolt* with twice as fast deployment speed
- Led the migration of CI/CD pipelines from *Jenkins* to *GitLab CI*
- Implemented internal services and utilities including:
  - *Django/DRF/ReactJS* dashboard web service for project environments
  - *Flask* service for production OPS delivery instructions and configuration handover
  - *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, NumPy, ReactJS

Development utilities: Git, Bash, core *nix utilities, rpm, dpkg, Sphinx

Operating systems: Linux (RHEL, Debian, Arch, Gentoo, Exherbo, NixOS), Windows

Build systems and CI/CD: Make, Ninja, CMake, Gitlab CI, Github Actions, 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 and Message Brokers: PostgreSQL, OracleDB, Amazon RDS, Apache Kafka, RabbitMQ, Redis

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