Ilya **Smirnov**

Software Engineer - Python, Go

Yerevan, Armenia

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Skills

Python	10+ years of various experience, following OOP, design patterns. asyncio / mp, aiohttp/asyncgp/aioredis, sqlalchemy, FastAPI, Django, pytest, data (numpy, scipy, pandas), pdb, cProfile
Go	2+ years of experience focused on developing microservices. net/http, grpc, database/sql, gorm, concurrency, sync, pprof
Tech	AWS, AWS CDK, Terraform, SQS, ActiveMQ, RabbitMQ, Docker, ELK, Grafana, Bash, Shell, SQL, Bamboo, Sentry, Splunk
Math	statistics, discrete math, probability theory, computational geometry

Experience

Sep. 2018 - Present
Yerevan, Armenia

Align Technology Inc.
Senior Software Engineer

- Developing web services, infrastructure and CI, create a variety of tools to automate processes (Python, GO, AWS)
- Responsible for R&D, developing new solutions and frameworks for running and testing Invisalign 3D simulator
- Introduces best practices for Python development, mentoring developers
- Research and develop new algorithms and ways for ensuring the quality of 3D shapes. Introduced the new geometric testing framework
- Developed cloud framework for managing testing of a complex workflow for pre-processing data for 3D printing (Go, AWS)
- Developed orchestrator for Regression and Performance testing of 3D simulator (Python, AWS), speed-up testing cycle up to 5x times
- Developed production solution for monitoring clusters (Django, FastAPI, Vue.js)
- Work in an agile distributed team with developers (US, Spain, Germany, Canada), and production engineers (Mexico)

Sep. 2014 - May. 2018
Moscow, Russia

Rock Flow Dynamics
Senior Software Developer in Test

- Responsible for testing of tNavigator 3D simulator
- Provide HPC testing and GPU-based solution performance testing, as well as training and consulting support worldwide
- Developed automated workflow for testing 3D simulator (Python). Speed-up testing cycle up to 6x times.

Nov. 2010 - Jul. 2014
Tyumen, Russia

TOGI LLC
Data Engineer (Oil & Gas, Simulation)

- 3D modeling and petrophysical simulation, including data analysis, history matching, and forecasting.
- Successfully completed innovative waterflood control and optimization project for Oil&Gas company (SPE article)

Education

2006-2011
Tyumen, Russia

Tyumen State University, Institute of Math and Computer Science
M. Sc. Thermal Physics

Achievements

Projects

2019-2024	Developed algorithms and tools for geometric medical objects quality checks (Python)	*Align Technology*
2020-present	Liner Bot - all-in-one helpful companion for residents with more than 5'000 users (Python)	*own project*
2017	Developed a quality assurance automation system (Python, bash, Qt)	*RFD*
2011-2014	Developed algorithms for Atlas software	*TOGI*

Mentoring

2020-2023	**Mentor**, Mentoring and reviewing students projects at Algorithms Course (Python)	*Yandex.Practicum*

Writing

2015	**Patent**, Author · Operations control method for reservoir flooding	*RU2565313C2*
2016	**Article**, Author · Uncertainty Quantification for Development Planning of a Large Field	*SPE-182008-MS*

Certificates

2023	Certified in Golang Advanced	*Yandex.Practicum*
2019	Certified in Python Programming	*Python Institute*
2017	Python and mathematics for data analysis (MITP)	*Coursera*

Cover letter

I am Ilya and I can offer you:

- 10+ years of experience developing anything and everything using technologies in my CV, ranging from web services and infrastructure to desktop applications and 3D computational geometry frameworks

- I dive deep into tasks, identify and solve problems, know how to find stakeholders to get things done, pitch ideas, and engage people

- I'm familiar with a wide range of tools and know how to find the ones I need

- I love (and don't burden others with) patterns and best practices

- I write good code (and then rewrite it to make it even better)

- I'll take the internet, LLM, and solve a task in any language or with a technology for some reason I don't know yet

I am looking for a community of professionals and a healthy, supportive environment. I am open to discussing my experience and potential opportunities with you!