Willhelm Sokolov

Development Daddy

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What's not in your heart is not in your hand...

Education

2012–2013	**BS CAE**, *Electrotechnical State University «LETI»*, Saint-Petersburg
2013–2015	**BS SE**, *Bonch-Bruevich State University of Telecommunications*, Saint-Petersburg
	Image comprassion (plain C++11), circuitry (Altera's products), distributed-computational system (Qt, math. optimisation)
2015–2017	**BS CSE**, *Innopolis University*, Innopolis
	DBMS (Qt, Boost), PCG (UE4, C99), UX (Axure PR), technical writing (GDocs, LaTeX)

Bachelor Thesis

title	*GPGPU for High-Performance JSE*
supervisor	Prof. Eugene Zuev
description	Creation of GPGPU-module for JerryScript (Samsung) using OpenCL/VulkanAPI

Experience

Commercial

2023-2024 (1 year)	**Senior Software Developer**, *NDA*, Worldwide

2M+ users platform development. Worked with multi-platform client and mobile developers, DevOps, and stakeholders.

- design and continuous support for multi-service platform
  - stack: Django/DRF/Jazzmin, FastAPI, PostgreSQL, Docker Compose (v2), Gunicorn with Uvicorn workers
  - code quality and environment tools: Rye/PDM, ruff, MyPy, code reviews
  - feature flags, dispatchers, Django Signals
  - file access race conditioning, IPC, async
- setup integrational and unit tests with pytest + BDD + coverage
- high-level flow documentation (Mermaid)
- SQL: optimization (query plans, raw SQL), design, [de]normalization

2023-2023 (4 months)	**Team Lead**, *RaftDS*, Russia

Lead LLM Security MVP.

- lead a small team (devs, DS, UI/UX) to complete the first stage of an AI MVP
- dev processes, architecture (UML 2.0 via Mermaid.js and Markdown), infrastructure, CI/CD, implementation (FastAPI, Docker, MLFlow, React)
- managing tasks (Jira, DoD) and communications (planning, design, debugging)
- R&D: LLMs and its downfalls, prompt injection, data poisoning, personal data protection, synthetic dataset creation
- reviewing articles, designs, and merge requests, conducted 1-on-1 calls

2022–2023 **Backend Team Lead**, *Stroyportal*, Russia
(7 months) Moved legacy (6+ years) parts to a new architecture and tools.
- developed a multi-service system from scratch: architecture, instruments, documentation, development process
- responsible for production deployment and integration with the legacy (strangler pattern)
- team leading from time to time (80-to-30 dev-lead ratio, not a typo), tasks decomposition, milestones planning
- stack: async FastAPI, async SQLAlchemy (ORM + Core) + SQLModel, PostgreSQL, RabbitMQ, Dramatiq, pre-commit

2021–2022 **Backend Developer**, *DataArt*, USA
(5 months) Outsource development and internal projects.
- refactoring, designing, and implementing back-end features
- improving and participated in development processes: code guidelines, white papers, retrospectives, documentation approaches, code reviews
- designing a Python course for beginners
- stack: async FastAPI, AWS Chalice, Fast API, DynamoDB, pre-commit

2020–2021 **Backend/NLP Developer**, *RoboVoice*, Russia
(ca. 2 years) I was responsible for improving the back-end part, designing and implementing NLP-related modules, and making the infrastructure for the Data Satanists team from scratch.
- working on NLP-platform (Python3, gRPC, Minio, PostgreSQL, Neo4j, Redis, dramatiq, pytest), ML-infrastructure from scratch (MLFlow, Triton, Hydra, Minio, nginx)
- consulted the development teams' pipeline (static code analyzer, guidelines, technical debt, retrospectives, etc.), reviewed code
- refactoring, designing, and implementing back-end features (GoLang, gRPC)

2017–2020 **Backend/ML Developer**, *OWN.space*, Germany, Russia
(2+ years) Mostly I was responsible for improving the existing agents, designing and implementing new ones, and, from time to time, improving the existing submodules architecture.
- NLP, ML, CV: spaCy, NLTK, Tensorflow, Keras, BERT, MS NLP-services
- developed Science-agent, natural language procesing and computer vision R&D
- refactoring, designing and implementing automatization and support tools
- team work: git, Scrum, apiary, meetings, team managing (interns)
- misc.: assisted in UX design, wrote automated tests (CI), consulted HoloLens (MS MR) team

2017–2017 **UE4 Developer**, *GD Forge*, Russia
(5 months) «Cycle» game project: survival, sandbox, craft, quests, fights, buildings.
- gameplay modules:
  - inventory + containers + craft, trauma system
  - dialogue system + workflow tools
- VFX: UE4 shader tool, HSLS
- UI: reworking, and implementing visuals and logic for gameplay modules
- SE: architecture creation
- team work: git, Trello, meetings

2012–2012 **Java Developer**, *Eureka BPO*, Russia
(4 months) Create, modify, and test modules for Alfresco ECM platform.
- tools:
  - Ubuntu workflow, MS Server
  - Java, MS SQL + PostgreSQL
- team work: Eclipse + SVN + Jira, meetings
- web: HTML + CSS+ DOM, e-mail emulating/testing

Hobby

2022–present **Project Lead**, worldwide

FRAAND (and front-end) is an open source lending items platform with emphathis on ehtics (when it comes to PSA) and user orientation (against B2G or B2B). Think of free (as in libre and cost-less) Avito.

2018–2019 **UE4 Indie-Developer**, *Timenudge Studios*, worldwide

Vertex is a complete re-vamp of «Star Wars: Jedi Knight» series on Unreal Engine 4.
There, I worked on gameplay mechanics design (abilities) and implementation (guns), lore essentials,
dev ops (Perforce deployment and support), public relations in CIS.

2016–2018 **Lead Programmer, PM**, *Gray Rat*, CIS

«Star Wars: Republic Commando 2» Unreal Engine 4 game project.
GDD, architecture + tech. design specifications, gameplay modules (UE4 C++ API), script (writing
and editing), character rigging (Blender), shaders and level design (WorldMachine, VFX via UE4
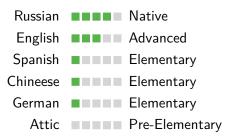particle system), SMM (3K fans).

Skill Matrix

Skill matrix Alternatively, provide a skill matrix to show off your skills

■□□□□ basic knowledge		■■■□□ extensive project experience
■■□□□ intermediate knowledge with some project experience		■■■■□ deepened expert knowledge
		■■■■■ expert / specialist

	Level	Skill	Years	Comment
Language:	■■■■□	Python3	7	*Thy rule is neigh, GIL!*
	■■■□□	C++	5	*It points at me!*
	■■□□□	GoLang	2	*Clean to Go!*
	■□□□□	Rust	1	*Deliver this Cargo in time!*
	■□□□□	TypeScript	1	*I Promise I won't React!*
	■□□□□	Java	2	*Do I need a class for that?*
System Design:	■■■□□	databases	5	*CAP and ACID, normalization vs. de-normalization, relational (PostgreSQL), key-value (Mongo), graph (Neo4j)*
	■■■□□	protocols	5	*REST, HTTP (/1.1, /2, QUIC, pipelining, multiplexing), gRPC/RPC, web-sockets, SOAP*
	■■■□□	approaches	5	*KISS, DRY, SOLID, CRUD vs. CQRS*
	■■■□□	architecture	5	*micro-services vs. monolith, DDD+Clean, ECS, functional, API gateway*
	■■■□□	computations	4	*ticks, scheduling, async ≠ multi-threading ≠ multi-processing ≠ parallelism (FPGA, SIMD, HPC)*
	■■□□□	messaging	2	*event bus, message delivery, RabbitMQ, Redis (pub/sub)*
DevOps:	■■■□□	servers	3	*Nginx reverse proxy, TLS, CORS*
	■■■□□	CI/CD	3	*deployment strategies, code quality, Docker Compose (v2), healthcheks, multi-staged builds*
OS:	■■■□□	Linux	8	*BTW, I use Arch...*
	■■■□□	Windows	10	*Did you know you can cut telemetrics out?*
Team Leading:	■■■□□	Communications	6	*They will use to love me calling. Or else.*
	■■■□□	Technical Writing	6	*UML 2.0 (activity, C4, ER), Mermaid.js, Markdown*
HCI:	■■□□□	UX	2	*personas, user study, Axure PR, Figma*
	■□□□□	Theory	2	*Ground theory, human-centred design*
Game Dev:	■■■□□	Unreal Engine	6	*C++ SDK, BP, VFX, IK animation, ECS*
	■■□□□	Design	3	*GDD, vision, TFPS, RPG*

Languages

Russian	■■■■□	Native	*prose, poetry, essays, technical writing*
English	■■■□□	Advanced	*fiction and non-fiction writing, oral presentations*
Spanish	■□□□□	Elementary	*very basics, intuitional reading and listening*
Chineese	■□□□□	Elementary	*very basics, reading with a dictionary*
German	■□□□□	Elementary	*very basics, intuitional reading*
Attic	□□□□□	Pre-Elementary	*basic concepts*

Interests

PC Games	Playing, Development, Testing, 12 years
Philosophy	Moism, Buddhism, Antiquity, 4 years
Military Sci.	Ancient Greece, Ancient China, WWII, Combined Arms, modern, 4 years
Dancing	Ballroom, 6 years
Music	Playing (guitar, piano), composing (FL Studio), 2+ years
Singing	Estrade, rap, 3 years
Matrial Arts	Muai-Thai, Sambo, Boxing, ACT/Silat-Kali, applied IPSC, 5 years
Hiking	50 klicks a day with 10 kilos, 3K meters high

Articles

2014	«Criticism of Voluntary Movements», *XVI International Baltic Communication Forum: GLOBAL AND REGIONAL COMMUNICATIONS: PRESENT AND FUTURE* VII: 59

References

OWN.space
○ Sebastian Denef, PhD HCI
   @denef
○ Andrey Ermak
   @andrew_it

Timenudge Studios
○ Chris Papageru, lead
   chrispapastergiou@gmail.com

Raft
○ Evgeniy Kokuykin, CTO
   @artmaro
○ Alina Lozovskaya, MA CL
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