Alexey Vanin

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About me

Birth Date	1994-08-08
Interests	Computer Networks, Distributed Systems

Education

2012 – 2016	Bachelor's degree. ITMO University, Faculty of Software Engineering and Computer Systems. GPA 4.9
2016 – 2018	Master's degree. ITMO University, Faculty of Software Engineering and Computer Systems. GPA 5.0

Work Experience

Nov. 2016 – Sep. 2018	JSC "Research Institute Masshtab", Software Engineer. Developed fault tolerant cluster setup based on VRRP for Kronos Firewall. Developed CLI for Kronos Firewall in Python. Worked with DPDK and Elbrus CPU.
Sep. 2018 – Aug. 2022	JSC "Morphbits" (ex "Neo Saint Petersburg Competence Center"), Researcher, Software Engineer, Project Lead. Developed distributed decentralized object storage with consensus-based control pane, S3 and HTTP protocol gateways in Go.
Aug. 2022 – now	YADRO, Software Engineer, Team Lead. Building services for Tatlin.Object: S3 and HTTP protocol gateways, identification and authentication layers.

Research Experience

University project: stack based virtual machine written in POSIX C with interpreter and compiler in C#.

Bachelor's thesis: "Analysis of traffic models from various IP-traffic generators". The paper shows that network traffic generators are not accurate because package flow in real networks has complex distribution, thus more accurate stochastic network traffic generator "Spectre" has been built and presented in this paper.

Master's thesis: "Aggregation of communication channels on top of the network layer of the OSI model considering QoS requirements". Analytical model from this paper provides insights of network reconfiguration to achieve expected quality of service with multipath transport protocols.

Research at Morphbits: improving efficiency of data distribution with "Gossip" protocol, decreasing migration rates in decentralized P2P networks based on Ceph's CRUSH algorithm.

Publications:	Vanin A.B. Bogatyrev V.A Bogatyrev S.V. Data Migration Rate of CRUSH-Based Distributed Object Storage with Dynamic Topology // Communications in Computer and Information Science. – 2021
	Vanin A.B. Bogatyrev V.A. Push-gossip protocol efficiency with network topology propagation // Majorov International Conference on Software Engineering and Computer Systems. – 2018
	Vanin A.B. Sosnin V.V. Streaming video transmission via OpenVPN tunnels. // Distributed Computer and Communication Networks: 20th International Conference, Proceedings. – 2017
	Vanin A.B. Analysis of the methodic error in the models of IP traffic generators. // Collection of theses and reports of the V Russian Congress of Young Scientists. – 2016

Technical Skills

I write code in Go, Python, C. Advanced user of Linux, Bash, Git. Have experience in building GPSS and NS-3 (MPI) models. For my projects I also use Nginx, Redis, PostgreSQL, interested in Rust.

Soft Skills

I managed and mentored small group of developers and students. A non-conflict person capable of finding compromises.

Languages

Russian	Native
English	Advanced
Japanese	Low Intermediate (JLPT N4, Jan. 2016)