Personal data

Alexander Krikun
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Tech skills

- **C++**, C, Rust, Bash
- **C++ STL**, **Boost**, OpenCV (C++)
- **Linux**, Git, Make, CMake, Clang, GCC, gdb
- TCP/IP
- SQLite, Memcached
- GitHub, GitLab, Jira, MS TFS

Summary of qualification

I found myself programming in C++ in 2017. In 2017 – 2018 I was creating simple control systems for Arduino-based robots. Since then I have been working part-time as Linux server side software engineer for such companies as "EleSy" (makes SCADA systems) and "InfoTeCS" (does cybersecurity and VPNs).

I think of myself as **Junior+ developer** or **Middle-ish developer**.

Education

- 2018 – 2022 / Currently enrolled in the "Computer science and engineering" BS program / TUSUR (Tomsk State University of Control Systems and Radio electronics) / Tomsk, Russian Federation

About me

- I participated in the international stage of RoboCup robotics championship twice (RoboCup Asia-Pacific 2017, 2018);
- I have no pernicious habits;
- I can learn quick and ready to do it;
- My native language is Russian, also I speak English (B2).

Experience

C/C++ Software engineer	**InfoTeCS JSC**	infotecs.ru
Term	Oct 2020 – now	
Project	**Quantum encryption security system** – a hardware-software solution for quantum key distribution	
Technologies	Linux, C++ STL, Boost, Bash, embedded C	
My impact	Besides participating in developing the core logic, I support the embedded software part of the project.	
C++ Software engineer	**EleSy**	elesy.ru
Term	Mar 2020 – Oct 2020	
Project	SNMP support and security subsystem of a **SCADA solution**	
Technologies	Linux, C++ STL, C, net-snmp	
My impact	I learned general principles of team work. In exchange I brought the practice of compile time checks to the projects I worked with.	

Competitive robotics

C++ Software engineer	
Project	**Rescue robot control system** for RoboCup championship, Junior Rescue Maze league
Task	Create a robot which finds it's way in a maze according to league rules
Term	Feb 2019 – Apr 2019
Team	1 software engineer, 1 circtuit engineer
Technologies	C++, Make, OpenCV, Linux, Raspberry Pi
My impact	I developed the control system. Also I implemented the environment analysis system based on lasers. This approach let us use only one camera as sensor subsystem (instead of many sonars).
Result	The robot was passing the maze
Embedded C++ Software engineer	
Project	**Soccer robot control system** for RoboCup championship, Junior Soccer Open league
Task	Create 2 wheeled robots which play soccer according to the league rules
Term	May 2017 – Dec 2018
Team	1 software engineer, 1 circuit engineer
Technologies	C++, Arduino
My impact	I developed: behavioral scenarios for robots, control system architecture, interfaces and libraries which let me quickly rewrite scenarios during competition days.
Result	The cooperation of Japanese, Iranian and our (Russian) team earned the SuperTeam Champion award in RoboCup Asia-Pacific 2017 in Thailand. Our team took 8th place in RoboCup Asia-Pacific 2018 in Iran.

Other projects

C Backend Developer	github.com/krikuff/fcgi-redir
Project	"FastCGI Redirector", a take-home assignment for an IT company
Term	Aug 2019
Task	Create a multithreaded backend application (http server), which redirects user from one URL to another. Redirection depends on the key in user's URL query. The key-URL pairs are stored in MySQL and have to be cached to Memcached. The server have to communicate with Nginx using FastCGI protocol and have to be written in C.
Technologies	C, Make, Linux, Nginx, MySQL, Memcached, POSIX
My impact	I created the required application. I reduced redirection latency by using MySQL asynchronous interface comparing to the usual blocking interface.
Result	Take-home assignment was accepted but I didn't land my job in the company because I couldn't fit my University schedule with full-time job.