Personal data

Name: **Alexander (Aleksandr) Krikun**

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Summary of qualification

I program in C++ from the 2017. In 2017 – 2018 I have been developing Arduino-based robots with various devices, but now I develop for Linux systems. I have no experience of commercial development so I think of myself as **Junior developer**.

Technical skills

- Git, GitHub
- Linux, Bash, Make
- MySQL, Memcached
- C/C++, Rust
- C++ STL, OpenCV (C++), POSIX

Education

- 2018 – 2022 / I am currently enrolled in the "Computer science and engineering" BS program / TUSUR University / Tomsk, Russia

About me

- I am keen on competitive programming,
- I had been participating in international stage of RoboCup robotics championship twice (RoboCup Asia-Pacific 2017, 2018),
- I have no pernicious habits,
- I can learn quickly and ready to do it,
- My native language is Russian, but also I know English (B2).

Courses

Name of the course	Certificate
Data Structures	stepik.org/cert/200414 (100%)

Experience

"FastCGI Redirector"	github.com/cobsea/fcgi-redir
Origin	Take-home assignment for an IT company
Term	August 2019
Team	1 software engineer
Task	Create a multithreaded backend application (http server), which redirects user from one URL to another according to special rules. The server have to communicate with Nginx using FastCGI.
Technologies	C, Make, Linux, Nginx, MySQL, Memcached, POSIX
Impact	I created the required application in C programming language. 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 combine my University schedule with full-time job

"N-body problem"	github.com/cobsea/n-body-problem
Origin	Summer practice in TUSUR University
Term	June 2019
Team	1 software engineer
Task	Create GUI desktop application which simulates gravitational interaction between given bodies in two dimensional space and displays them
Technologies	C++, Make, Linux
Impact	I completed the given task. I developed library of classes which represents body interactions in two dimensional space and doesn't have any dependencies.
Result	Summer practice was rated with 5 (highest grade).

Rescue robot control system	
Origin	RoboCup robotics championship, Junior Rescue Maze league
Term	February 2019 – April 2019
Team	1 software engineer, 1 electrical engineer
Role	Software engineer
Task	Create a robot which finds it's way in a maze according to league rules
Technologies	C++, Make, OpenCV, Linux, Raspberry Pi
Impact	I developed the control system. Also I implemented environment analysis system based on lasers. This approach let us to use only one camera as sensor subsystem (instead of many sonars).
Result	The robot was passing the maze

Soccer robot control system	
Origin	RoboCup robotics championship, Junior Soccer Open league
Term	May 2017 – December 2018
Team	1 software engineer, 1 electrical engineer
Role	Software engineer
Task	Create a team of 2 robots with wheels which play soccer according to league rules
Technologies	C++, Arduino
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 2017 in Iran.