Yakutsk, Russia
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Andrei Petrov

Embedded software developer

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I am a young and enthusiastic software developer with a background in the aerospace industry and electrical engineering. Since early high school, I've been coding flight software for CanSat satellites in pure C. My pet projects include home automation systems, websites and model rocket payload electronics. Be sure to check out my flagship project - a real-time operating system kernel for 8-bit microcontrollers.

As I have just graduated from school, I may not have much experience in the field, but this is one of my key advantages - I can learn fast. Because of my aerospace background, I fear no challenge and can perform complex tasks in most stressful environments.

Skills

Tools and Languages	C, Assembly (AVR, x86), Python, Git, LaTeX, HTML/CSS
Electrical Engineering	KiCad EDA, Proteus 8, LTSpice, Verilog
MCU Architectures	AVR8, Cortex-M0 (STM32), Cortex-M3 (SAM3X), Cortex-M4 (STM32)
Communication	English (C1), Russian, Cat 2 Russian Amateur Radio License

Technical Experience

Electrical Engineering Lead / YKTSAT-1 CubeSat — **Jul 2020 — Present**
Sakha Aerospace Systems, LLC — *Yakutsk, Russia*

- Payload electronics design.
- Flight software development in C.
- Ground station operations, radio communication and satellite control.
- Documentation handling, management and project supervision.

Tutor / Yakutsk International Research School — **Aug 2021 — Sep 2021**
Sakha Junior Science Academy — *Yakutsk, Russia*

- Student project supervision in aerospace science.
- Teaching C programming basics, electrical engineering, electronics assembly.
- Papercraft rocketry.

Intern - Junior Software Developer — **Mar 2020 — Jun 2020**
Sever Information Security Center, LLC — *Yakutsk, Russia*

- Website fullstack development, Flask/Python.
- Backend development, email malware filter in Python.
- Network and system administration, VMware ESXi management.

Intern - Electrical Engineer — **Jun 2019 — Nov 2020**
Shafer Institute of Cosmophysical Research — *Yakutsk, Russia*

- Electronic circuit design, assembly and repair basics.
- Working with satellite communication equipment, radio communication basics.
- High energy particle physics course.

Education

High School, *V.P.Larionov Physics & Technical Lyceum* — 2012 — 2020

Activities

MSU Aerospace Engineering School (RosCanSat competition) - Team Leader / Programmer	2018 — 2020
Space-Oriented Learning for Americans and Russians (SOLAR program) - Finalist	Summer 2020
Scientists of the Future Internetional competiton of research and engineering projects @ Moscow Research Presenter, 3rd place	Fall 2019
National Taiwan University Science Innovation School - Student, Research Presenter	Summer 2019
"Big Challenges"All-Russian project competition @ Sirius Center - Finalist	Summer 2019
International Science Youth Forum, Hwa Chong Institution @ Singapore - Research Presenter	Winter 2018
WorldSkills Russia Finals in Space Systems Engineering @ Moscow - Participant, Silver award	Winter 2018
National Children Science Congress @ Gandhinagar, India - Research Presenter	Winter 2017
Asia-Pacific Conference of Young Scientists @ Kathmandu, Nepal - Participant, Gold award	Winter 2017