

Yakutsk, Russia
thepetrovich@yktaero.space

Andrei Petrov

Embedded software engineer

GitHub: thepetrovich
Telegram: thepetrovich

I am an embedded software engineer with a background in the aerospace industry and electrical engineering. I've been writing flight software for CanSat satellites in C since early high school. Now I design payload electronics for CubeSats.

My interests include embedded systems, network engineering and website development. Be sure to check out my flagship project: [a real-time operating system kernel for 8-bit microcontrollers](#).

SKILLS

Tools and Languages	C/C++, Assembly (AVR, x86), Python, Git, \LaTeX , HTML/CSS/JS, VMware ESXi, GnuRadio
Electrical Engineering	KiCad EDA, Proteus 8, LTSpice/NGSpice
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 <i>Sakha Aerospace Systems, LLC</i>	Jul 2020 — Present <i>Yakutsk, Russia</i>
<ul style="list-style-type: none">• CubeSat payload module electronics design.• Flight software development in C.• Ground station operations, radio communication and satellite control.• Documentation management and project supervision.• Network and server maintenance, cloud service operation (Nextcloud, Gitlab, Onlyoffice).• Fullstack WebDev (Django), GitLab CI/CD, DevOps – yktaero.space	
Tutor / Yakutsk International Research School <i>Sakha Junior Science Academy</i>	Aug 2021 — Sep 2021 <i>Yakutsk, Russia</i>
<ul style="list-style-type: none">• Student project supervision.• Teaching C programming basics, electrical engineering, electronics assembly.• Aerospace engineering courses for students.	
Intern - Junior Software Developer <i>«Sever» Information Security Center, LLC</i>	Mar 2021 — Jun 2021 <i>Yakutsk, Russia</i>
<ul style="list-style-type: none">• Fullstack website development, Flask/Python.• Email malware filter development, Python.• Network engineering, VMware ESXi management.	
Intern - Electronics/Embedded Software Engineer <i>Safer Institute of Cosmophysical Research</i>	Jun 2019 — Nov 2020 <i>Yakutsk, Russia</i>
<ul style="list-style-type: none">• PCB design, assembly and repair.• Satellite & radio communication basics.• High energy particle physics course.	
* Internships shorter than 1 month are not listed.	

EDUCATION

Undergraduate , <i>Bachelor of Electrical Engineering, National Taiwan University</i>	2022 — Present
High School , <i>V.P.Larionov Physics & Technical Lyceum</i>	2012 — 2020

ACTIVITIES

Sakha Junior Science Academy @ Yakutsk – Satellite Ground Station Operator	2021 — Present
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 International competition 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