Sergey Chernayev | CV

I have always loved science since I was a kid. This love evolved into a passion for engineering and coding. I am currently working in P.L. Kapitza Institute for Physical Problems maintaining the dilution refrigerator (fixing the circuit, making the filter system, writing the Software, etc). I am also making an industrial elevator based on an Arduino platform. Game development, cyber security and quantum computers are three areas that I am completely crazy about

Education

HSE Tikhonov Moscow Institute of Electronics and Mathematics (MIEM HSE)

Moscow 2015–now

Bachelor, 3rd year

Info-communication Technologies and Systems

Online Courses:

- Coursera 'Developing in C++: the white belt'
 - https://www.coursera.org/account/accomplishments/certificate/7B4UR2EVZA2P
- Coursera 'The Power of Microeconomics: Economic Principles in the Real World'
 - https://www.coursera.org/account/accomplishments/certificate/8E8NGNE7S48M
- Coursera 'Bayesian Statistics: From Concept to Data Analysis'
 - https://www.coursera.org/account/accomplishments/certificate/EP3CJMKA82YQ

Experience

P.L. Kapitza Institute for Physical Problems of Russian Academy of Sciences

Moscow

Junior Laboratory Assistant

Perform different engineering tasks in a Low Temperature Physics laboratory under the supervision of D.Sc. Arutyunov K.Yu.

2015-now

Detailed achievements:

- Fabrication and Measurement of Amplitude-Frequency Characteristic of Strip RC Filter for Precision Transport Measurements at Ultra-Low Temperatures;
- Creating a LabVIEW-based Software for Experimental Data Collection and Management
 - https://github.com/lordonium/Labview-Acquisition-Software
- o Creating a Delta/Pulse Delta Measurement system software for low temperature experiments
 - https://github.com/lordonium/Pulse-Measurement-System
- o Creating a PID temperature controller using LabVIEW and DAQ
 - https://github.com/lordonium/PID-Temperature-Control

Languages

English: Proficiency level Academic IELTS Score: 7.5

German: Pre-Intermediate level

Russian: Native

Computer skills

C++: Intermediate knowledge

Python: Intermediate knowledge

Lua/Löve: Intermediate knowledge

LabVIEW: Advanced knowledge

NI Multisim: Intermediate knowledge

LTSpice: Intermediate knowledge

LTSpice: Intermediate knowledge

Interests

Game Development: I am really interested in game design and development and have some experience in working with Unreal Engine 4, GameMaker, SFML and Lua. One of my games in UE4 can be seen on my Github page:

https://github.com/lordonium/Shooter-Game

Quantum technologies: I am extremely passionate about quantum technologies, especially quantum algorithms and how to operate with a real quantum computer

Arduino platform: I enjoy being involved in different Arduino projects

CTF: Cyber security has always been a topic of great interest to me, that is why I have participated in numerous CTFs such as MOSCOW CTF SCHOOL; UFO CTF; etc

Translation of technical literature: I have recently started translating from Russian into English and vice versa some works of D.Sc. Arutyunov K.Yu. and D.Sc. Vasenko An.S. for academic purposes

Video Editing: I do enjoy occasional video montage and editing for the University and School working in FinalCut Pro

Basketball: I used to compete in Moscow National Junior Basketball Championship and still enjoy playing streetball in summer with my friends

Other projects

Arduino project:development of the industrial elevatorCurrently in progressArduino project:development of the secure beach storagesCurrently in progress

Voluntary work

American Moscow Center at the Embassy of the United States

Moscow 2016–2017

I used to give classes on how to use Arduino platform for teenagers and adults

Publications

Shein K. V. Shukaleva A. G. Arutyunov K. Zavialov V. V., Chernyaev S. A. Examination of cryogenic filters for a multistage rf filltering system required for ultralow temperature nanoelectronic experiments. *Journal of Physics: Conference Series.* 2017.

Shein K. Shukaleva A. G. Arutyunov K. Zavyalov V., Chernyaev S. Multistage rf filtering system for ultralow temperature nanoelectronic experiments. *28th International Conference on Low Temperature Physics*, 2017.