Vítězslav Lužný

Citizenship: Czech Republic
Birth date: April 27, 2001
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Education

Charles University in Prague, Faculty of Mathematics and Physics September 2020 – Present
pursuing bachelors degree in Mathematical Modelling *Prague, Czech Rebublic*

Gymnázium Christiana Dopplera September 2016 – June 2020
School-leaving examination *Prague, Czech Republic*

Work Experience

Technician July, 2022 – Present
Nano Optics group, Institute of Photonics and Electronics of the Czech Academy of Sciences
- Currently working on "Analysis and reconstruction of iSCAT fluctuation patterns"
- Developing a controlling software for high speed iSCAT microscopy (C/C++, Python)
- Developed a controlling system for phase vortex generation using heat signature (Arduino, C/C++)

Speckle pattern analysis January, 2022 – June, 2022
Nano Optics group, Institute of Photonics and Electronics
- (Python)

Software development for high speed iSCAT microscopy September, 2021 – November 2021
Nano Optics group, Institute of Photonics and Electronics February, 2021 – May, 2021
June, 2020 – September, 2020
- (C/C++, Python, LabView)

Internship January, 2019 – December, 2019
Nano Optics group, Institute of Photonics and Electronics
- Point Spread Function estimation from measurements (Matlab, LabView)

Extending Jídelna application October, 2018 – February, 2019
BARDA SW, HW, s.r.o.
- Bug fixes (Java)

Extending module Objednávky in Jídelna application July, 2018 – August, 2018
BARDA SW, HW, s.r.o.
- Data synchronization (Java)

Nano Optics exposition at Veletrh vědy June, 2018 – June, 2018
Nano Optics group, Institute of Photonics and Electronics

Internship January, 2018 – December, 2018
Nano Optics group, Institute of Photonics and Electronics
- Developed a controlling software for confocal iSCAT microscope (C#)

Projects, Competitions & Achievements

Qualified for working with electronic devices From May 2022
Institute of Photonics and Electronics
- Trained according to the §4 Decree 50/1978 Coll.

International Young Physicists' Tournament September 2018 - June 2020
- Demonstrated leadership skills as the **Captain** of the team **Kudlankográl GChD (Mantegral)**
- Personally worked on many open-ended inquiry problems, such as *Popsickle Chain Reaction*, *Moiré Thread Counter*, *Sweet Mirage* and more
- **Won the second place at the national level in 2020**
- Won the third place at the regional level in 2019

Highschool technical project (Středoškolská Odborná Činnost - SOČ) 2020
- Project *Graphics Engine in C++ and OpenGL*
- Learned about graphics programming and programmed a library for simple 3D and 2D graphics in OpenGL
- Won the third place at the regional level

Matfyz FEAT 2018
- Teamwork, project Acoustic Levitator
- Won the Jury Prize

Regular paricipation in competitions 2018 and before
- Such as *Purple Comet*, *Mathematical Olympiad, Physics Olympiad, Young Programmer* and more

Specialized Skills

Programming Languages: C/C++ (advanced), Python (intermediate) and more
Languages: Czech (native), English (good), German (basic)

Other Interests

Sports: Swimming, Hiking