

Nikola Kalábová

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Education

Bioinformatics Charles University Prague, Czech Republic 2018 – now

I am doing a bachelor level degree in bioinformatics.

Abitur Friedrich Schiller Gymnasium Pirna, Germany 2012 – 2018

Studying in a foreign country gave me the understanding of a different culture and improved my language abilities.

I also learnt responsibility and self-sufficiency.

Work Experiences

Research internship

Institute of Biotechnology, Czech Academy of Sciences 2020 – now

I am currently working in a bioinformatical laboratory. This way I am improving my programming skills and understanding of science and scientific research.

Projects

KD-tree for periodical data Institute of Biotechnology 2020

I have created a tool to find nearest neighbours in a large data set of periodical data with the usage of KD-trees. It gave me the knowledge of advanced data structures and various Python tools.

Calculating dihedral angles in DNA molecules Institute of Biotechnology 2020

I learned how to design a complex data structure, which is easy to work with at the same time.

Skills

Programming: C#, Python, R, Bash, Pascal, Git, Linux, LaTeX

Software: PyMol, Microsoft Office, Adobe Photoshop

Mathematics: Linear Algebra, Algebra, Graph Theory

Languages

Czech: Native speaker

German: Studied in Germany for 6 years, graduated from German as native language

English: C1 level

Russian: A1 level

Extracurricular activities

Main organizer of mathematics competition for middle schools 2018 - 2020

Organizer of mathematics competition for middle schools 2020 - now

Fall school of Mathematics and Physics 2019

Science week on Faculty of Nuclear Sciences and Physical Engineering 2016

Interests

Chemical graph theory, Networks, Mathematical structures, Molecular biology