

# Veronika Hendrychová

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## EDUCATION

### Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University (FNSPE CTU)

September 2020 - PRESENT

Third year of bachelor studies of Mathematics and Computer Science; CGPA: 4.0, weighted grade average 1,109

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## AWARDS

### Merit scholarship

June 2021

For excellent grades during 1st year of bachelor studies

### “General Alois Liška Award”

June 2017

For excellent representation of Grammar-school Turnov during high-school studies

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## WORK EXPERIENCE

### Member of the leadership of FYKOS

December 2020 - PRESENT

- One of the principal organizers of FYKOS student group organizing several annual physics competitions and other educational events for high-school students on an international level
- Coordinated project management of these competitions
  - FYKOS Correspondence Competition - correspondence contest, ~ 200 participants, 6 rounds a year
  - FYKOS Camps - two week-long camps a year for the best participants of the Correspondence Competition
  - Fyziklani - in-presence physics competition in Prague, last year ~ 1200 participants from 21 countries
  - Physics Brawl Online - online physics competition, last year ~ 3900 participants from 62 countries
- Leader of the autumn week-school for 40 participants in 2022, coordinated 20 organizers
- FYKOS belongs to the Faculty of Mathematics and Physics, Charles University

### IT developer of FYKOS

July 2020 - PRESENT

- Developing several static websites using Nette and dokuwiki
- Maintaining SQL database of participants and events and its web application
- Deploying and maintaining websites on server, handling redirecting to remote servers
- Designing scripts to simplify workflow
- Providing IT support for both organizers and participants of the competitions

### Organizer of Science summer camps for children

July 2018 - PRESENT

- Annual two-week summer camp for 90 elementary school pupils with focus on education in science
- Creating and lecturing physics programs for children
- Organized by the Faculty of Science, Charles University

### Database administrator and organizer of Science Week

March 2022 - July 2022

- One-week event for 150 high-school students, focused on popularization of and education in physics
- Maintaining the database, communication with participants, and maintenance of the website on server
- Organized by the Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University

## PROJECTS

<b>String Attractors</b> – Project under Prof. Ľubomíra Dvořáková (CTU, Czechia) and Dr. Karel Břinda (INRIA, France) Studied string attractors and developed algorithms to work with sequences and their attractors	2022 - PRESENT
<b>Constant Gap Sequences</b> – Project under Prof. Ľubomíra Dvořáková (CTU, Czechia) Studied and gained insights in combinatorics on words	July 2021
<b>LEGO Robots Programming</b> – Project under Dr. Lenka Kretschmerová (TUL, Czechia) Assembled and programmed a robot with a temperature sensor using Lego MindStorms NXT and LabVIEW	2016 - 2017

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## INTERNSHIPS, CONFERENCES, COMPETITIONS

<b>Internship at the Inria/IRISA Institute, Rennes</b> – week-long stay at the institute including giving an invited lecture on “String attractors of infinite words” for the GenScale project team	March 2023
<b>Students’ Conference of the TIGR Research Group</b> Given lecture on the topic of String Attractors	June 2022
<b>ScienCon</b> – selected for science conference focused on choosing career path, organized by International Association of Physics Students in Poland	April 2022
<b>Hands on CERN</b> – selected for excursion to CERN after taking part in the seminar organized by FNSPE, CTU	November 2020
<b>Moderator of the Physics Education session of “IAPS at a distance”</b> Event of the International Association of Physics Students	August 2020
<b>FYKOS Physics Correspondence Competition</b> Two years of participation, both times 11 <sup>th</sup> in my category	2018 - 2020
<b>CERN HSSIP</b> – selected among the best 24 high-school students from Czechia for two-week-long internship in CERN	June 2017
<b>Czech Programming Olympiad</b> – 1x regional round during high school	2019
<b>Czech Physics Olympiad</b> – 4x regional, 1x national round during high school	2016 - 2019
<b>Czech Language Olympiad</b> – 4x regional, 1x national round during high school	2016 - 2019
<b>Spanish Language Olympiad</b> – 1x regional round during high school	2016

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## LANGUAGES AND SKILLS

<b>English</b> – Level C2, CAE Certificate
<b>Spanish</b> – Level B2, self-estimated
<b>French</b> – Level A2, self-estimated
<b>Skills</b> – C++, Python, C#, PHP, HTML, Git, Nette, TeX, XML, MySQL, dokuwiki

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## KEY COURSES TAKEN

<b>Mathematics</b> – Calculus (4 semesters), Linear Algebra (2 semesters), Algebra, Discrete Mathematics (4 semesters), Differential Equations, Numerical Mathematics, Probability and Statistics
<b>Computer Science</b> – Programming in C++ (2 semesters), Linear Programming, Introduction to Algorithms, Introduction to UNIX
<b>Physics</b> – Thermal and Molecular Physics, Mechanics, Electromagnetism, Waves and Optics