# 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; weighted grade average 1,1

#### **AWARDS**

#### Scholarship of the Czech Literary Foundation

May 2023

Travel scholarship to cover the travel expenses of the Inria internship in Rennes, France

Merit Scholarship
For excellent grades during 1st year of bachelor studies

June 2021

"General Alois Liška Award"

June 2017

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

#### 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
  - o Fyziklani in-presence physics competition in Prague, last year ~ 1200 participants from 21 countries
  - $\circ$  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 framework 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**

String Attractors – Project under Prof. Ľubomíra Dvořáková (CTU, Czechia)	2022 - PRESENT
and Dr. Karel Břinda (INRIA, France)	
Discovered minimal attractors of new classes of words and developed algorithms to work with them	
Constant Gap Sequences – 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 LabVIEV	2016 - 2017 V

# INTERNSHIPS, CONFERENCES, COMPETITIONS

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

# LANGUAGES AND SKILLS

English – Level C2, CAE Certificate Spanish – Level B2, self-estimated French – Level A2, self-estimated

Skills - C++, Python, C#, PHP, HTML, Git, Nette, TeX, XML, MySQL, dokuwiki

#### **KEY COURSES TAKEN**

**Mathematics** – Calculus (4 semesters), Linear Algebra (2 semesters), Algebra, Discrete Mathematics (4 semesters), Differential Equations, Numerical Mathematics (2 semesters), Probability and Statistics, Complex Functions

**Computer Science** – Programming in C++ (3 semesters), Linear Programming, Introduction to Algorithms, Introduction to UNIX, Computer Graphics (2 semesters), Introduction to Java

Physics - Thermal and Molecular Physics, Mechanics, Electromagnetism, Waves and Optics