Veronika Hendrychová

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EDUCATION

ENS, Université de Rennes, France　　　　　　　　　　　　2023 - PRESENT
Studying Computer Science during a two-semester Erasmus stay

Czech Technical University,　　　　　　　　　　　　　　　2020 - 2023
Faculty of Nuclear Sciences and Physical Engineering (FNSPE CTU)
Graduated with honors from bachelor studies of Mathematical Computer Science

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　　　　　　　　　　　　　　　　　　　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

PUBLICATIONS

Hendrychová V., **"String Attractors"** – Bachelor thesis under Prof. Ľubomíra Dvořáková　　2023
(CTU, Czechia) and Dr. Karel Břinda (INRIA, France)
Newly discovered minimal attractors of special classes of words, formally proved them, and developed
algorithms to work with them

Dvořáková L., Hendrychová V., **"String attractors of Rote sequences"**　　　　　　2023
Published original results from bachelor thesis

WORK EXPERIENCE

Member of the leadership of FYKOS　　　　　　　　　　　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　　　　　　　　　　　　　　　　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

Lecturer and organizer of Science summer camps for children   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   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

Constant Gap Sequences – Project under Prof. Ľubomíra Dvořáková (CTU, Czechia)   2021
Studied and gained insights in combinatorics on words

LEGO Robots Programming – Project under Dr. Lenka Kretschmerová (TUL, Czechia)   2016 - 2017
Assembled and programmed a robot with a temperature sensor using Lego MindStorms NXT and LabVIEW

INTERNSHIPS, CONFERENCES, COMPETITIONS

Internship at the Inria/IRISA Institute, Rennes – week-long stay at the institute including   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

ScienCon – selected for science conference focused on choosing career path,   2022
organized by International Association of Physics Students in Poland

Hands on CERN – selected for excursion to CERN after taking part in the seminar   2020
organized by FNSPE, CTU

Moderator of the Physics Education session of "IAPS at a distance"   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   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