

Veronika Hendrychová

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github.com/vercah

Updated in November, 2023

EDUCATION

École Normale Supérieure, Rennes, France

2023 - PRESENT

Two-semester Erasmus stay, 1st year of Master's degree in Computer Science

Czech Technical University,

2020 - 2023

Faculty of Nuclear Sciences and Physical Engineering (FNSPE CTU)

Graduated with honors from bachelor studies in Mathematical Computer Science

AWARDS

2nd place in the Rektorys Competition

2023

Presentations of students' scientific works

Scholarship of the Czech Literary Foundation

2023

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

Merit Scholarships of FNSPE CTU

2021, 2023

For excellent grades during 1st year of bachelor studies, and graduation with honors

"General Alois Liška" Award

2017

For excellent representation during high-school studies

PUBLICATIONS

Dvořáková L., Hendrychová V., "[String attractors of Rote sequences](#)"

2023

Published original results from bachelor thesis

INTERNSHIPS, CONFERENCES, COMPETITIONS

Internship at the Inria/IRISA Institute, Rennes, France

1 week, 2023

Given an invited lecture on "String attractors of infinite words" for the GenScale group

Conferences of the TIGR Research Group, Czechia

2023, 2022

Given lectures on the topic of String Attractors

ScienCon, Poland

2022

Selected for a science workshop focused on choosing career path

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", online

2020

Event organized by the International Association of Physics Students

Fyziklani, Czechia

2019

In-presence team physics competition, 13th in category

FYKOS Physics Correspondence Competition, online

2018 - 2020

Two years of participation, both times 11th in category

CERN HSSIP, Switzerland – selected among the best 24 high-school

2 weeks, 2017

students from Czechia for two-week-long internship in CERN

PROJECTS

Mathematical Model of Phylogenetic Compression – Under Dr. Karel Břinda (Inria, France) 2023 - PRESENT

Gaining insights in phylogenetic compression

String Attractors – Under Prof. Ľubomíra Dvořáková (CTU, Czechia) 2022 - 2023

and Dr. Karel Břinda (INRIA, France)

Formally proved newly discovered minimal attractors of special classes of words, and developed algorithms to work with them

Constant Gap Sequences – Under Prof. Ľubomíra Dvořáková (CTU, Czechia) 2021

Studied and gained insights in combinatorics on words

Other projects published at <https://github.com/vercah>

WORK EXPERIENCE

Member of the leadership of FYKOS (FMP, CUNI) 2020 - PRESENT

- Student group organizing several international physics competitions and other educational events for high-school students under the patronage of the Faculty of Mathematics and Physics, Charles University
- Annually coordinating project management of these events
 - 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 team physics competition in Prague, last year ~ 1200 participants from 21 countries
 - Physics Brawl Online - online team physics competition, last year ~ 3900 participants from 62 countries
 - Day with experimental physics - free excursions to scientific laboratories for ~100 high school students
- Leader of the autumn week-school for 40 participants in 2022, coordinated 20 organizers

IT developer of FYKOS 2020 - PRESENT

- Developing several static websites using Nette framework and dokuwiki
- Maintaining SQL database of participants and its web application
- Deploying and maintaining websites on the 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 (FSci, CUNI) 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

Database administrator and organizer of Science Week (FNSPE, CTU) 2022

- One-week event for 150 high-school students, focused on popularization of physics
 - Maintaining the database, communication with participants, maintenance of the website on the server
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LANGUAGES, TOOLS

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|----------------------------------------|------------------------------------|
| • Czech (native speaker) | • Python, C++, C#, Java, Coq |
| • English (C2, CAE Certificate) | • PHP, Nette, MySQL, XML, dokuwiki |
| • Spanish (B2, self-estimated) | • Git(Hub), (La)TeX |
| • French (A2, self-estimated) | |
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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