

# Veronika Hendrychová

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vercah.github.io/veronika-hendrychova

github.com/vercah

Updated in January, 2024

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## 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

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## AWARDS

### 2<sup>nd</sup> place in the Rektorys Competition

2023

Presentations of CTU 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 high school representation

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## PUBLICATIONS

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

2023

Published original results from bachelor thesis

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## INTERNSHIPS, CONFERENCES, COMPETITIONS

### SeqBIM Conference, Lille, France

2023

Presented project "Mathematical model of phylogenetic compression"

### Visit at the Inria/IRISA Institute, Rennes, France

1 week, 2023

Invited talk "String attractors of infinite words" for the GenScale team

### Conferences of the TIGR Research Group, Czechia

2023, 2022

Talks 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, 13<sup>th</sup> in category

### FYKOS Physics Correspondence Competition, online

2018 - 2020

Two years of participation, both times 11<sup>th</sup> in category

### CERN HSS Internship Programme, Switzerland

2 weeks, 2017

Two-week-long internship in CERN for 24 selected high-school students from Czechia

## PROJECTS

### Mathematical Model of Phylogenetic Compression

10 months, 2023 - PRESENT

Under Prof. Ľubomíra Dvořáková (CTU, Czechia) and Dr. Karel Břinda (Inria, France)

### String Attractors of Pseudostandard and Rote Words

10 months, 2022 - 2023

Under Prof. Ľubomíra Dvořáková (CTU, Czechia) and Dr. Karel Břinda (Inria, France)

### Constant Gap Sequences

1 month, 2021

Under Prof. Ľubomíra Dvořáková (CTU, Czechia)

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

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## WORK EXPERIENCE

### Member of the leadership of FYKOS (FMP, CUNI)

2020 - PRESENT

- Students' group at the Faculty of Mathematics and Physics, Charles University
- Organizing several major annual events and competitions in physics for high-school students
- Annually coordinating project management of these events
  - Fyziklani - in-presence team physics competition in Prague, last year ~ 1200 participants from 21 countries
  - 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
  - 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

### 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 - 2023

- 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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|--|------------------------------------|
| • <b>Czech</b> (native speaker)        | • Python, C++, C#, Java, Coq       |
| • <b>English</b> (C2, CAE Certificate) | • PHP, Nette, MySQL, XML, dokuwiki |
| • <b>Spanish</b> (B2, self-estimated)  | • Git(Hub), (La)TeX                |
| • <b>French</b> (B1, 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, Coding Theory

**Computer Science** – Programming in C++ (3 semesters), Linear Programming, Introduction to Algorithms, Introduction to UNIX, Computer Graphics (2 semesters), Introduction to Java, Complexity Theory, Coq Basics, Experimental Bioinformatics