







RNDr. Valdemar Švábenský


Cybersecurity education researcher & instructor


 Masaryk University, Czechia

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 <https://elea.sk/valdemar>

 Google Scholar profile

 GitHub: [svabensky/research](https://github.com/svabensky/research)

 LinkedIn profile


About Me


I am passionate about gaining expert knowledge through **high-quality research** and sharing it with others via **teaching**.


My research interests are applications of **data mining and machine learning**, including but not limited to cybersecurity and education.


Currently, I am transitioning to a **postdoctoral position** at an international **research institution**.


Hard Skills


 Programming (Python, Git)

 Data analysis and statistics

 Information security/privacy

 Virtualization (Vagrant, Ansible)






 Document typesetting (L^AT_EX)

 Video production (Camtasia)






★ Professional Experience

- 09 / 2017 – **Researcher** Cybersecurity Lab, Masaryk University, Czechia 
now Discovering effective ways of teaching security professionals by analyzing training data. Participating in these projects:
- 03 / 2019 – **Cyber Security for Europe** 
now European Union, Horizon 2020
Identification code: 830929
- 01 / 2019 – **Cybersecurity Center of Excellence** 
now European Regional Development Fund
Identification code: CZ.02.1.01/0.0/0.0/16_019/0000822
- 01 / 2017 – **KYPO Cyber Range Platform** 
12 / 2018 Ministry of Interior of the Czech Republic
Identification code: VI20162019014
- 09 / 2014 – **Instructor and Seminar Tutor** Masaryk University, Czechia 
now Leading *Python programming* seminars (7 semesters), the *Seminar of cyber attack simulation* (4 semesters), and others. Supervising bachelor and master theses. (Full list here )
- 06 / 2016 – **IT Project Manager** Datakabinet, Slovakia 
09 / 2016 Supervising the development of a large educational portal. Specifying, analyzing, and prioritizing requirements.

Top Five Featured Publications (Full list here)

- 2020 **What Are Cybersecurity Education Papers About? A Systematic Literature Review of SIGCSE and ITiCSE Conferences** 
V. Švábenský, J. Vykopal, P. Čeleda
ACM SIGCSE Technical Symposium (CORE A, Best Paper Award)
- 2020 **Cybersecurity Knowledge and Skills Taught in Capture the Flag Challenges** 
V. Švábenský, J. Vykopal, P. Čeleda, S. Brišáková
Elsevier Computers & Security (Q1, IF = 4.438)
- 2022 **Evaluating Two Approaches to Assessing Student Progress in Cybersecurity Exercises** 
V. Švábenský, R. Weiss, J. Cook, J. Vykopal, P. Čeleda, J. Mache, R. Chudovský, A. Chattopadhyay
ACM SIGCSE Technical Symposium (CORE A)
- 2022 **Student Assessment in Cybersecurity Training Automated by Pattern Mining and Clustering** 
V. Švábenský, J. Vykopal, P. Čeleda, K. Tkáčik, D. Popovič
Springer Education and Information Technologies (Q2, IF = 2.917)
- 2021 **Dataset of Shell Commands Used by Participants of Hands-on Cybersecurity Training** 
V. Švábenský, J. Vykopal, P. Seda, P. Čeleda
Elsevier Data in Brief (Q2)

Education

- 09 / 2017 – **Ph.D. Degree** Masaryk University, Czechia 
09 / 2022 (expected) *Study program:* Computing Technology and Methodology
Thesis: Automated Feedback for Cybersecurity Training 
Grade average: 1.00 (among the best 28% of students)
- 09 / 2014 – **Master Degree** Masaryk University, Czechia 
06 / 2017 *Study program:* Information Technology Security
Thesis: Prerequisite Testing of Cybersecurity Skills 
Grade average: 1.66 (among the best 22% of students)
- 01 / 2015 – **Erasmus+ Exchange** Copenhagen University, Denmark 
06 / 2015 *Study program:* Computer Science
Grade average: 1.38

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Highlights

- 19 published **papers**
(5 journal, 14 conference)
- 163 non-self **citations**
- 13 contributed **peer reviews**
- 13 global conference **talks**
- 13 supervised **theses**
- 25 visited **countries**

Certifications

- 140 IQ** | Mensa
- Essentials of Scientific Work**
Czech Academy of Sciences
- Cambridge First Certificate In English** | British Council
- Driver's License** (B type)

Languages

- Slovak (native, C2)
- English (fluent, C1)
- Czech (fluent, C1)
- Russian (minimal, A1)

Soft Skills

- Teaching
- Project management
- Creativity
- Non-violent communication

Strengths

analytical strategic goal-oriented
organized focused team player

Interests

- Music (jazz, rock, pop)
- Films (action, sci-fi, comedy)
- Board games (strategy, party)
- Exercise (body weight, cardio)
- Hiking (casual)

Awards

- 2022 **Best Paper in the Experience Reports and Tools Track** [↗](#)
ACM SIGCSE Technical Symposium
- 2020 **Best Paper in the Computing Education Research Track** [↗](#)
ACM SIGCSE Technical Symposium
- 2019 **Rector's Award for Outstanding Teachers** [↗](#)
Masaryk University
- 2017 **Dean's Award for Master Thesis** [↗](#)
Faculty of Informatics, Masaryk University
- 2016 **Award for the Best Student Educators** [↗](#)
Students' Chamber of the Masaryk University's Academic Senate
- 2014 **Dean's Award for Bachelor Thesis** [↗](#)
Faculty of Informatics, Masaryk University
- 2014 **Dean's Award for Excellent Academic Performance** [↗](#)
Faculty of Informatics, Masaryk University

International Experience

- 03 / 2022 **Research Internship** Northern Kentucky University, KY, USA [↗](#)
Initiating research collaboration, sharing best practices in teaching cybersecurity
- 02 / 2019 **Industry Internship** Peter Stone Jewelry, Thailand [↗](#)
Consultations for designing a data-driven system for managing and optimizing the supply chain
- 10 / 2018 **European Cyber Security Challenge** London, UK [↗](#)
Coach of the Czech team in an EU-wide competition

Selected Talks at International Conferences

- 03 / 2022 **ACM SIGCSE Technical Symposium** Providence, RI, USA
Evaluating Two Approaches to Assessing Student Progress in Cybersecurity Exercises
- 10 / 2018 **IEEE Frontiers in Education** San Jose, CA, USA
Gathering Insights from Teenagers' Hacking Experience with Authentic Cybersecurity Tools
- 07 / 2018 **ACM ITiCSE Conference** Larnaca, Cyprus
Enhancing Cybersecurity Skills by Creating Serious Games
- 02 / 2018 **ACM SIGCSE Technical Symposium** Baltimore, MD, USA
Challenges Arising from Prerequisite Testing in Cybersecurity Games

Volunteering and Non-Profit Projects

- 2012 – now **Elea: Teach yourself math** [↗](#)
95 free educational YouTube videos about mathematics
- 2018 – 2022 **The Stack** [↗](#)
Open-source collection of 30 unplugged teaching activities
- 2016 – 2017 **Python programming classes**
Introductory practical workshops for high-school students

Reference Contacts

doc. Ing. Pavel Čeleda, Ph.D. (celeda@ics.muni.cz) – My Ph.D. advisor
RNDr. Jan Vykopal, Ph.D. (vykopal@ics.muni.cz) – My Ph.D. consultant