

Contact information

Name: Petr Ryšavý
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Position: Ph.D. student and researcher
Affiliation: Intelligent data analysis lab
Dept. of Computer Science
Faculty of Electrical Engineering
Czech Technical University in Prague
Room number: KN:E-435 (Karlovo náměstí 13)
Residency: Mělník district, Czech Republic, EU
Date of birth: 1991
ORCID: 0000-0002-6597-6616

Research interests

Machine learning, data mining, algorithms, bioinformatics.

Education

- February 1, 2016 - January 2020 (expected)
Ph.D. program Artificial Intelligence and Biocybernetics
Computer Science Department
Faculty of Electrical Engineering, Czech Technical University in Prague
Prague, Czech Republic
<http://www.fel.cvut.cz/en/>
Supervisor: Filip Železný
Research topic: Learning from Read-data
- January 2014 - December 19, 2015
M. S. in Computer Science
School of Engineering and Computer Science, Baylor University, Waco, TX, USA
<http://www.ecs.baylor.edu/>
Master's thesis: Geometric Methods of Accelerating Triangle-inequality-based k -means
Supervisor: Greg Hamerly
- September 2010 - June 2013
Bachelor's program in Computer and Information Science
Faculty of Electrical Engineering, Czech Technical University in Prague
Prague, Czech Republic
<http://www.fel.cvut.cz/en/>, <http://informatika.fel.cvut.cz/en/home>

Bachelor's thesis: Metro-Line Crossing Minimization Problem on Czech Hiking Trails
Supervisor: Radomír Černoš

Awards and scholarship

- Frontier Prize for the best paper of the IDA 2016 conference
https://ida2016.blogs.dsv.su.se/?page_id=1481
- Baylor University
Full tuition scholarship and graduate assistantship stipend
<http://www.ecs.baylor.edu/computerscience/index.php?id=868327>
- Czech Technical University in Prague
graduated with honour

Employment

- May 2018 - today
Researcher at Computer Science department of CTU in Prague
- January 2014 - December 2015
Research assistantship at Baylor University, Waco, TX
20 hours work maintaining Java Enterprise application for ACM ICPC competition (<http://icpc.baylor.edu>)

Teaching

- Bioinformatics (labs: Spring 2018, Spring 2019)
- Symbolic Machine Learning (labs: Spring 2017, Spring 2018, Spring 2019)
- Advanced Algorithms (labs: Fall 2016, Fall 2017, Fall 2018, Fall 2019)
- Algorithms (labs: Spring 2016)

Current and former students

- Hana Mertanová (Bc. in 2019, <https://dspace.cvut.cz/handle/10467/82485>)

Journal publications

[Ryšavý and Železný(2019)] Petr Ryšavý and Filip Železný. Estimating sequence similarity from read sets for clustering next-generation sequencing data. *Data Mining and Knowledge Discovery*, 33(1):1–23, Jan 2019. doi:10.1007/s10618-018-0584-8.

Conference publications

- [Ryšavý and Hamerly(2016)] Petr Ryšavý and Greg Hamerly. *Geometric methods to accelerate k-means algorithms*, pages 324–332. May 2016. doi:10.1137/1.9781611974348.37. URL <https://epubs.siam.org/doi/abs/10.1137/1.9781611974348.37>.
- [Ryšavý and Železný(2016)] Petr Ryšavý and Filip Železný. Estimating sequence similarity from read sets for clustering sequencing data. In Henrik Boström, Arno Knobbe, Carlos Soares and Panagiotis Papapetrou, editors, *Advances in Intelligent Data Analysis XV: 15th International Symposium, IDA 2016*, pages 204–214. Springer International Publishing, 2016. doi:10.1007/978-3-319-46349-0_18.
- [Ryšavý and Železný(2017)] Petr Ryšavý and Filip Železný. Estimating sequence similarity from contig sets. In Niall Adams, Allan Tucker and David Weston, editors, *Advances in Intelligent Data Analysis XVI: 16th International Symposium, IDA 2017*, pages 272–283, Cham, 2017. Springer International Publishing. doi:10.1007/978-3-319-68765-0_23.

Other publications

- [Ryšavý(2017)] Petr Ryšavý. Using tries for evaluating monge-elkan distance on genomic sequences. In Libor Husník, editor, *Proceedings of the International Student Scientific Conference Poster – 21/2017*. Czech Technical University in Prague, 2017.
- [Ryšavý(2018)] Petr Ryšavý. On sequence overlaps minimizing post-normalized edit distance. In Libor Husník, editor, *Proceedings of the International Student Scientific Conference Poster – 22/2018*. Czech Technical University in Prague, 2018.
- [Ryšavý(2019)] Petr Ryšavý. Approximate search in genomic data. In Libor Husník, editor, *Proceedings of the International Student Scientific Conference Poster – 23/2019*. Czech Technical University in Prague, 2019.