Slavomír Hanzely

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webpage

EDUCATION

King Abdullah University of Science and Technology, Applied Mathematics and Computational Science[1] (MSc./Ph.D.) 2019-present, MSc. finished in 2020
I work in the research group focused on the Optimization Theory (Stochastic Optimization, Distributed Optimization, Federated Learning); under supervision of Peter Richtárik.

Faculty of Mathematics, Physics and Informatics, Comenius University, Computer Science (BSc.) 2016-2019
I enrolled excessive amount of courses, only in 1st year I got 95 credits (including master's courses; recommended amount for one year - 60). During my BSc. study, I passed 7 Master courses[2] and I unofficially attended (due to the high amount of credits) 8 courses[3]:
Passed all BSc. finals with best grades.

Gymnázium Jána Adama Raymana, Prešov (high school) 2013-2016
Graduation (Maturita) in 6 subjects (only 4 are compulsory), passed with best grades

LAST PROJECTS

- ZeroSARAH: Efficient Nonconvex Finite-Sum Optimization with Zero Full Gradient Computation, arXiv
- Lower Bounds and Optimal Algorithms for Personalized Federated Learning, NeurIPS 2020
- Adaptive Learning of the Optimal Mini-Batch Size of SGD, NeurIPS 2020 workshop

ACHIEVEMENTS

Vojtěch Jarník International Mathematical Competition
2017: **8-10th place** in category 1 (first place within Czech and Slovak contestants)

Mathematical Olympiad
2016: **3rd place** on the national round, category A (winner)
Participation on **International Mathematical Olympiad** (IMO)
2015: 18-20th place (**bronze medal**) on Middle European Mathematical Olympiad (MEMO)

Olympiad in Computer Science
2016: 1st place on regional round

[1] Relevant courses that I passed: Special Topics in Data Sciences, Special Topics in Machine Learning, Special Topics in Federated Learning, Probability and Statistics, Stochastic Processes, Advanced Probability, Contemporary Topics in Signal Processing, Combinatorial Machine Learning.
[2] Cryptology, Programming Languages, Probabilistic Methods, Advanced Effective Algorithms, Mathematical Analysis(3), Unstructured Talks on Structures: Chapters in Mathematics for Computer Scientist(1, 2)
[3] Category Theory, Graph Theory, Combinatorial Structures, Markov Processes, Probability Theory, Selected Topics in Data Structures, Selected Topics in Algebra, Matrix Calculus

WORK EXPERIENCES

Nozdormu (crypto trading company) - internship Jun 2020 - Aug 2020
My goal was to analyze, model and design practical algorithms to optimize resource allocation of the company and implement the developed methods under various constraints.

Mathematical Olympiad 2017 - 2019

- marking problems at the national round of Mathematical Olympiad (3 times)
- organizing a day at the national selection camp for International Mathematical Olympiad — creating problem set and marking the solutions (3 times)
- preparing new format of selection camp for International Mathematical Olympiad and creating problem sets for the whole camp (team of 4 people)

Trojsten — volunteering 2016-2019

- marking solutions of the competitions for talented high school students KMS, KSP and iKS (approximately 600 solutions, 150 hours of work)
- organizing camps for talented high school students in Mathematics and Computer Science - I organized 15 camps (4 of them as the main organizer).
- delivering 36 lectures (including a half-day lecture on the camp iKS)

SKILLS

Programming

- advanced in Python, PyTorch, Julia, Java , C/C++
- experiences with Matlab, R, Haskell, Assembler

HOBBIES

Sport

- ultimate frisbee
  representing Slovak national team on tournmants European Youth ultimate Championship and European Youth ultimate Cup
- in past: ice-hockey, floorball, karate