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Viacheslav Ivanov

05/28/1997

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EDUCATION

Moscow Institute Of Physics And Technology GPA: 9.39/10; in the top 5% of the department
Bachelor of Science, Applied Mathematics & Computer Science *08.2016 — 08.2020*
Department of Discrete Mathematics
Relevant courses: applied statistics, optimization, advanced combinatorics, algorithms and data structures (3 terms), concurrent programming, distributed programming, practical in mathematical research

RESEARCH EXPERIENCE

Mutual analysis of interaction networks and quantitative trait loci for yeast, *2018-present*:
Supervisor: Yuri Pritykin, PhD (Princeton), Research Scholar at MKSCC
Detailed project description is available on GitHub.

- Implemented different approaches to QTL mapping in yeast, from basic to state-of-the-art
- Integrated PPINs into QTL analysis. Implemented statistical tests using igraph package.
- Carried out GWAS on NGS expression data. Learned how to tackle domain-specific difficulties arising from large-scale hypothesis testing using FDR-correction techniques (especially qvalue).
- Learned how to write fast and memory-efficient scientific code using numpy, scipy and pandas.
- Practiced parallel programming, interprocess communication and data persistency in Python.
- Utilized MIPT supercomputing capabilities, learned how to use SLURM.
- Worked with GeneOntology and KEGG API and related Python/R tools.

This project will eventually evolve into my bachelor's thesis.
We plan to submit the paper for publication this spring.

HONORS

- **Abramov Scholarship For Academic Excellence** *2nd term — present*
  Earned by top 10% students by average GPA in their academic program.
- **Russian Government Scholarship For International Students** *2016 — 2020*
  Was selected to become one of 3 Ukrainians to receive the full-coverage scholarship to study CS at the best Russian universities and got enrolled to MIPT directly, without entrance examination.
- **Governor of the Moscow Region Scholarship For Academic Excellence** *Autumn 2017*
  Awarded termly to excellent students for promising achievements in scientific activities.
- **Summer School in Bioinformatics by Russian Bioinformatics Institute** *Summer 2017*
  Became one of 50 CS majors selected to participate. Was a member of a hackathon-winning team.
- **Moscow International Workshops in Competitive Programming** *Autumn 2016, Spring 2017*
  Was selected to participate in three workshops on advanced algorithms and competitive programming.
- **ACM ICPC Moscow Subregional Contest (1/4 World Finals)** *Autumn 2017*
  Our team ranked 17 among 301 participating teams and 7th at home university.
- **All-Ukrainian Chemistry Olympiad** — double awardee, triple winner of regional stage
- **All-Ukrainian Tournament of Young Chemists** — 2nd place

SKILLS

Programming languages:	Python3, R, LaTeX, Wolfram Mathematica bash, C++ (STL, C++11), C
Bioinformatics-related:	**R**: igraph, qvalue, MatrixEQTL, GFLASSO **Python**: NumPy, SciPy, Pandas, Seaborn, joblib, GEOparse **Other:** Jupyter Notebook, Git, Unix utilities, SLURM
Other:	solid knowledge of algorithms and data structures strong mathematical background

LANGUAGES

English (advanced), German (A2), Russian (native), Ukrainian (native)

REFERENCES

Dr. Yuri Pritykin (thesis supervisor), research scholar at MKSCC yuri.pritykin@gmail.com
Prof. Andrei Raygorodsky, head of department at MIPT mraigor@yandex.ru