Petar Ivanov

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Summary

Informatics competitor, communicator and educator.
Makes the world smarter by pushing algorithms to natural sciencies.

Skills

Algorithms: Graphs, Combinatorics, Strings, Geometry, Optimization, Dynamic Programming
Languages: **C / C++ (STL)**, Python (NumPy, SciPy, MatPlotLib), Ruby, MATLAB, Java
Tools: Unix, Bash, Vim, Git, LaTeX

Education

SEP 2013 – NOW *(graduated all semesters)*	Bachelor degree in **Computer Informatics** Shumen University, Bulgaria
SEP 2011 — JUN 2013	Master degree *(not accredited)* in **Bioinformatics** // also taugh algorithms to biologists Yandex School of Data Mining, Moscow, Russia
SEP 2009 — JUN 2013 *(interrupted by visa issues)*	Specialist degree *(equivalent to Master)* in **Applied Mathematics and Informatics** Moscow State University, Russia // more calculus
SEP 2008 — JUN 2009 *(moved to Moscow University)*	Bachelor degree in **Computer science** // instructor of advanced algorithmics course Sofia University, Bulgaria // mainly discrete maths
SEP 2000 — JUN 2008	**Mathematics and Physics class** // award for most scientific achievements of his year Shumen High school of Sciences, Bulgaria

Additional:

JAN 2011	VISION AND MACHINE-LEARNING RESEARCH SCHOOL, ENS Lyon, France
JUL 2008	RUSSIAN SUMMER INFORMATICS CAMP, Kostroma, Russia // 3 weeks of tasks and theory
AUG 2007	PHYSICS CAMP, Panitsite, Bulgaria // 3 weeks of maths and physics
2004 — 2007	SUMMER RESEARCH INFORMATICS CAMP, Varna, Bulgaria // 2-week problem solving
2001 — 2008	MATHEMATICS AND INFORMATICS PRIVATE SCHOOL "A&B", Shumen, Bulgaria

INTERNSHIPS

JUL 2013 — | Summer internship on SPAdes open source **genome assembler** // chimera presentation: [PDF]
AUG 2013 | // proof of concept demonstrated: replication bugs to enhance assembly in open source assembler
| *supervised by Dr. Pavel Pevzner, Algorithmic Biology Lab, St. Petersburg Academic University*

JUL 2012 — | **Research internship** on verification of probabilistic biological models
AUG 2012 | // proposed my own topics on 1) virus-bacteria interaction and 2) microcin antibiotics: [Summary]
| *supervised by Prof. Martin Vechev, Software Reliability Lab, ETH Zurich*

JUL 2011 — | **Google Summer of Code** internship // implemented topological operators on tetrahedral meshes
AUG 2011 | *Computational Geometry Algorithms Library (CGAL)*

TEACHING

NOV 2013 — | High-school **students trainer** for informatics competitions // sketched an algorithmic textbook
NOW | *Mathematics and Informatics Private School "A&B", Shumen, Bulgaria*

NOV 2013 — | Technical Assistant in a *Coursera* **bioinformatics course** // lectures editing, forum explanations
JAN 2014 | *supervised by Dr. Pavel Pevzner, University of California, San Diego*

AUG 2010 | Lecturer at school students **informatics camp** // the best informatics camp after studying in it
| *Russian Summer Informatics Camp, Saratov*

MAR 2008 — | Assistant in **"Design and Analysis of Algorithms"** course // had seminars with my own group
JUN 2009 | *Faculty of mathematics and informatics, Sofia University, Bulgaria*

OTHER WORK

SEP 2012 — | Microbiological models designer // design, implementation and analysis
JUN 2013 | *Institute of Gene biology, Russian Academy of Sciences*

SEP 2008 — | Jury, organizer, tester and author of the problems in **Online programming tournament**
JUN 2009 | *Musala Soft, Bulgaria* // mainly discrete optimization problems

SEP 2008 — | Author of problems in all **Bulgarian Tournaments in Informatics** // 4 such competitions
JUN 2009 | Lecturer in the **National Informatics Camps** // 3 such camps
| *National Committee in Informatics, Bulgarian Ministry of Education*

JUL 2007 — | Developer of a bin-packing **genetic algorithm** for glass cutting optimization
SEP 2007 | *Telepol Net, Bulgaria* // appreciating evolution and first algorithm in production

Awards

the competitions are National Bulgarian if nothing else stated

1st place	"Minko Balkanski" Competition in Informatics '08
11th place	TopCoder High School Finals, West Lafayette, USA '08
1st place	Autumn Tournament in Informatics '07
1st place	Student Competition for the Dean's cup of Sofia University '07
2nd place	International Young Physicists Tournament *(regional, in team)* '06
1st place	"Rumen Grozdanov" Informatics and Mathematics Tournament '06
1st place	Winter Tournament in Informatics '06

- Awarded as a **National Laureate in Informatics**, Bulgaria '08
- Scholarship for **science achievements** of American Foundation for Bulgaria '07–'08
- Participated in the **final rounds** of the Bulgarian Olympiad in Informatics '05–'08
- Participated in the **final rounds** of the TopCoder High School, West Lafayette, USA '07–'08
- Participated in the **final rounds** of "Musala Soft and PC Magazine" competition '07–'08

Activities

- Solve algorithmic problems // TopCoder, Timus, Rosalind
- Open the mind and the source // GitHub profile
- Speak English, Russian and Bulgarian
- Founded a project for describing educational systems by students // students-abroad.info
- Love to dance, hike, bike, orienteer and run long
  // **42.195km in 3:43h** — Zelenograd, Russia, Dec 2011
  // **100km in 13:19h** — Vitosha mountain, Bulgaria, Jul 2012