

Petar Ivanov

email: peter.ivanov89@gmail.com
site: pesho.info



SUMMARY

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

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 <i>(graduated all semesters)</i>	Bachelor degree in Computer Informatics Shumen University, Bulgaria
SEP 2011 – JUN 2013	Master degree <i>(not accredited)</i> in Bioinformatics // also taught algorithms to biologists Yandex School of Data Mining, Moscow, Russia
SEP 2009 – JUN 2013 <i>(interrupted by visa issues)</i>	Specialist degree <i>(equivalent to Master)</i> in Applied Mathematics and Informatics Moscow State University, Russia // more calculus
SEP 2008 – JUN 2009 <i>(moved to Moscow University)</i>	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 – AUG 2013 | Summer internship on [SPAdes](#) open source **genome assembler** // chimera presentation: [\[PDF\]](#)
// 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 – AUG 2012 | **Research internship** on verification of probabilistic biological models
// 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 – AUG 2011 | **Computational Geometry Algorithms Library (CGAL)** internship
[Google Summer of Code](#) // implemented topological operators on tetrahedral meshes

TEACHING

- NOV 2013 – NOW | Students **informatics competitions** trainer // sketched an algorithmic textbook
Mathematics and Informatics Private School “A&B”, Shumen, Bulgaria
- NOV 2013 – JAN 2014 | Technical Assistant in a Coursera **bioinformatics course** // lectures editing, forum explanations
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 – JUN 2009 | Assistant in “**Design and Analysis of Algorithms**” course // had seminars with my own group
Faculty of mathematics and informatics, Sofia University, Bulgaria

OTHER WORK

- SEP 2012 – JUN 2013 | Microbiological models designer // design, implementation and analysis
[Institute of Gene biology](#), Russian Academy of Sciences
- SEP 2008 – JUN 2009 | Jury, organizer, tester and author of the problems in **Online programming tournament**
Musala Soft, Bulgaria // mainly discrete optimization problems
- SEP 2008 – JUN 2009 | Author of problems in all **Bulgarian Tournaments in Informatics** // 4 such competitions
Lecturer in the **National Informatics Camps** // 3 such camps
National Committee in Informatics, Bulgarian Ministry of Education
- JUL 2007 – SEP 2007 | Developer of a bin-packing **genetic algorithm** for glass cutting optimization
[Telepol Net](#), Bulgaria // appreciating evolution and first algorithm in production

AWARDS

the competitions are National Bulgarian if nothing else stated

1 st place	“MINKO BALKANSKI” COMPETITION IN INFORMATICS ’08
11 th place	TOPCODER HIGH SCHOOL FINALS, West Lafayette, USA ’08
1 st place	AUTUMN TOURNAMENT IN INFORMATICS ’07
1 st place	Student Competition for the DEAN’S CUP OF SOFIA UNIVERSITY ’07
2 nd place	INTERNATIONAL YOUNG PHYSICISTS TOURNAMENT (<i>regional, in team</i>) ’06
1 st place	“RUMEN GROZDANOV” INFORMATICS AND MATHEMATICS TOURNAMENT ’06
1 st 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

-
- Speak **English**, **Russian** and **Bulgarian**
 - Solve **algorithmic problems** // [TOPCODER](#), [TIMUS](#), [ROSALIND](#)
 - Open the mind and the source // [GitHub profile](#)
 - Founded a project for describing educational systems // [students-abroad.info](#)
 - Love to hike, bike, orienteer and to run long // **42.195km in 3:43h** – Zelenograd, Russia, Dec 2011
 - // **100km in 13:19h** – Vitosha mountain, Bulgaria, Jul 2012