# **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 <b>Computer Informatics</b> Shumen University, Bulgaria
Sep 2011 — Jun 2013	Master degree (not accredited) in <b>Bioinformatics</b> // I 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 in Moscow University)	Bachelor degree in <b>Computer science</b> // 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, Sudislavl', Kostroma region, Russia
AUG 2007	PHYSICS CAMP, Panitsite region, Bulgaria
2004 - 2007	SUMMER RESEARCH INFORMATICS CAMP, Varna, Bulgaria
2001 - 2008	MATHEMATICS AND INFORMATICS PRIVATE SCHOOL "A&B", Shumen, Bulgaria

# WORK EXPERIENCE

Nov 2013 — Now	High-school students trainer for informatics competitions // sketched an algorithmic textbook Mathematics and Informatics Private School "A $\mathcal{E}B$ ", Shumen, Bulgaria
Nov 2013 — Jan 2014	Technical Assistant in online bioinformatics <b>Coursera</b> course supervised by Dr. Pavel Pevzner, University of California, San Diego
Jul 2013 — Aug 2013	Summer internship on SPAdes genome open source assembler // presentation // proof of concept: used replication bugs to enhance assembly in opensource assembler supervised by Dr. Pavel Pevzner, Algorithmic Biology Lab, Petersburg Academic University
SEP 2012 — Jun 2013	Microbiological models designer supervisor: prof. Konstantin Severinov, Institute of Gene biology, Russian Academy of Sciences
Jul 2012 — Aug 2012	Researcher internship on verification of probabilistic biological models //summary supervised by Prof. Martin Vechev, Software Reliability Lab, ETH Zurich
Jul 2011 – Aug 2011	Google Summer of Code internship // implemented topological operators on tetrahedral meshes Computational Geometry Algorithms Library (CGAL)
AUG 2010	Lecturer at school students informatics camp Russian Summer Informatics Camp, Saratov
Mar 2008 — Jun 2009	Assistant in "Design and Analysis of Algorithms" course Faculty of mathematics and informatics, Sofia University, Bulgaria
Sep 2008 — Jun 2009	Jury, organizer, tester and author of the problems in Online programming tournament, Musala Soft, Bulgaria
SEP 2008 — Jun 2009	Author of problems in all Bulgarian Tournaments in Informatics Lecturer in the National Informatics 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 // my first algorithm in production

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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

Student Competition for the Dean's cup of Sofia University '07

International Young Physicists Tournament (regional, in team) '06

1st place "Rumen Grozdanov" Informatics and Mathematics Tournament '06

Winter Tournament in Informatics '06
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- 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