

Pesho Ivanov

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SUMMARY

PhD student at ETH Zurich with strong background in Computational Biology, Algorithms and Data structures. Always enjoyed informatics competitions. Worked as a Software engineer at Google. Loves teaching and communicating science.

EDUCATION

APR 2017 — NOW	PhD student on Reliable Computational Biology <i>Prof. Martin Vechev's Secure, Reliable, and Intelligent Systems Lab (SRI)</i> Computer Science department ETH Zurich, Switzerland
APR 2015 — FEB 2017	Master degree in Software Engineering (<i>extra-mural</i>) Thesis: <i>Framework for Genomic Reconstruction Algorithms</i> Shumen University, Bulgaria
JUN 2014	Bachelor degree in Computer Informatics Shumen University, Bulgaria ↑ transferred because of a crazy ban from entering Russia
SEP 2009 — JUN 2013 (interrupted by visa issues)	Specialist degree (<i>equivalent to Bachelor+Master</i>) in Applied Mathematics and Informatics Moscow State University, Russia // calculus, Computer vision
SEP 2008 — JUN 2009 (left to Moscow)	Bachelor degree in Computer science // + led seminars in advanced algorithmics Sofia University, Bulgaria // mainly discrete maths
SEP 2000 — JUN 2008	Mathematics and Physics profile // award for most scientific achievements of his year Shumen High school of Sciences, Bulgaria
<u>Additional:</u>	
SEP 2011 — JUN 2013	Master degree (<i>not accredited</i>) in Bioinformatics // + taught algorithms to biologists Yandex School of Data Mining, Moscow, Russia
JAN 2011	VISION AND MACHINE-LEARNING RESEARCH SCHOOL, ENS Lyon, France
JUL 2008	RUSSIAN SUMMER INFORMATICS CAMP, Kostroma, Russia // 3 weeks of problems 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

JUN 2016 – MAR 2017	Bioinformatics internship on Single-cell transcriptomics lymphoma patients <i>Prof. Martin Vechev, Software Reliability Lab, ETH Zurich</i> <i>PD Dr. Emmanuella Guenova, Dermatology Clinic, University of Zurich</i>
JUL 2013 – AUG 2013	Summer internship on SPAdes open source genome assembler // chimera's presentation // proof of concept: replication bugs to enhance assembly in open source assembler <i>Prof. Pavel Pevzner's, Algorithmic Biology Lab, St. Petersburg Academic University</i>
SEP 2012 – JUN 2013	Microbiological models designer // Microcin modelling <i>Prof. Konstantin Severinov's lab, Institute of Gene biology, Russian Academy of Sciences</i>
JUL 2012 – AUG 2012	Research internship on probabilistic verification of biological models // insisted on my own topic on virus-bacteria interaction [Summary] <i>Prof. Martin Vechev's, Software Reliability Lab, ETH Zurich</i>
JUL 2011 – AUG 2011	Computational Geometry Algorithms Library (CGAL) internship Google Summer of Code // implemented topological operators on tetrahedral meshes
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

TEACHING

SEP 2015 AND SEP 2018	Supervisor of high school students Science&Arts school "Science Xplore" , Viseu, Portugal
NOV 2013 – JUN 2014	Informatics competitions trainer for high school students Mathematics and Informatics Private School "A&B" , Shumen, Bulgaria
NOV 2013 – JAN 2014	Teaching Assistant in a Coursera Bioinformatics course <i>Prof. Pavel Pevzner, University of California, San Diego</i>
AUG 2010	Lecturer at school students informatics camp // strongest Russian competitors Russian Summer Informatics Camp , Saratov
MAR 2008 – JUN 2009	Teaching Assistant in "Design and Analysis of Algorithms" course <i>Faculty of mathematics and informatics, Sofia University, Bulgaria</i>
SEP 2008 – JUN 2009	Author of the problems in Online programming tournament <i>Musala Soft, Bulgaria</i> // mainly discrete optimization problems
2008 – 2009 2013 – 2014	Author of problems for Bulgarian Tournaments in Informatics Lecturer at National Informatics Camps <i>National Committee in Informatics, Bulgarian Ministry of Education</i>

INDUSTRY

SEP 2014 – Software Engineer at Search \supset Knowledge \supset Infrastructure
JAN 2016 *Google Zurich*

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 (REGIONAL, IN TEAM) ’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

GENERAL SKILLS

Algorithms: Graphs, Combinatorics, Strings, Geometry, Optimization, Dynamic Programming
Programming: C / C++ (**STL**), Python (NumPy, SciPy, Matplotlib), Ruby, MATLAB
Tools: Unix, Bash, Vim, Git, ~~Λ~~TEX
Speaks: English, Russian, Bulgarian

ACTIVITIES

- Solving algorithmic problems // [TOPCODER](#), [TIMUS](#), [ROSALIND](#)
- Supporting crowdsourcing, FOSS and open data
- Editing [wikipedia](#) and a [personal wiki](#)
- Running and paragliding // [42.195km in 3:43h](#), Zelenograd, Russia, Dec 2011
// [100km in 13:19h](#), Vitosha mountain, Bulgaria, 2012
- Meditation // [GOENKA’S 10-DAY MEDITATION RETREAT](#), 2020