Max Grinchenko

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Education

Combined Plan student at the University of Richmond and Columbia University

Columbia University, The Fu Foundation School of Engineering and Applied Sciences

*Bachelor of Science - Applied Physics (**GPA 3.46**)*

<u>Relevant Coursework</u>: *Plasma Physics 1&2, Data Structures, Advanced Programming, Applied Electrodynamics, Quantum Physics of Matter, PDE's, Modeling Social Data, Intro to Quantum Computing*

University of Richmond

Bachelor of Science - Mathematics and Physic s

<u>Relevant Coursework</u>: *Game theory, Abstract Algebra, Economics, Financial Accounting, Fourier Analysis, Probability and Statistics, Real Analysis, Systems Biology*

Research Experience

Programmer and Analyst, **Latha Venkataraman Research Group, Summer 2014**

- Incorporated and coded log bin and linear bin histogram conversion tools into GUI's, created data analysis software
- Debugged experimental software ranging in length from two to four thousand lines long by inserting small tests and tracers

2 year summer research fellowship, **University of Richmond, 2010-2011**

- Applied graph theory to sparse matrices to optimize computation of determinants
- Tested RSA encryption algorithm by modifying nonlinear s-box, and analyzing effect on security
- Focused on creating accurate, accessible presentations and papers

Publications

Campbell Sam, Duan Yiran, Hristiyan Hristov, Grinchenko Max. "*From Graphs to Determinants to Matrices.*" The Pi Mu Epsilon Journal Fall 2012: 391-400. Print.

- **Andree Award** winner for best undergraduate paper published in 2012 Journal

Campbell Sam, Grinchenko Max, Smith Billy. "*Linear Cryptanalysis of Simplified AES under change of S-Box.*" Cryptologia Volume 37 Issue 2 2013: 120-138. Print.

Computer Skills

Programming and Scripting Languages- python, java, C, C++, R , XHTML/CSS/Javascript

- Extensive experience using python for variety of data gathering, analysis and presentation projects; including twitter and reddit API big data problems, SCIPY analysis of plasma stability problems, and simulation of quantum computation problems. Comfort with pointer and memory management in C and C++ with projects involving back and front end server coding.

Applications- Mathematica, Creo Parametric 2.0, Excel, MS word, Powerpoint, Igor Pro, LaTex

- Experience typesetting scientific papers in Latex. Complete comfort crafting Powerpoint presentations and navigating excel spreadsheets, will turn problems into simple, interactive solutions in Mathematica

Skills and Experience

Native Russian speaker with reading and writing ability

Administrative Assistant, **The Harriman Institute,** Columbia University, September 2013-present

-Head of AV at 2014 and 2015 ASL conferences

Tutor*,* **Professional Tutors,** Summer 2013-present

-Worked primarily with students in impoverished neighborhoods to raise SAT scores , learn basic reading skills, and begin to grasp mathematical concepts using clear, concise language and a fair share of patience.

Team Captain and Social Chair*,* **University of Richmond Men's Ultimate Team 2012-2013**