**Max Grinchenko**

4900 Stone Mountain, GA­

(201) 669-0936 | mg3416@columbia.edu

**Education**

Combined plan student at the **University of Richmond** and **Columbia University GPA 3.46**

Bachelor of Science in **Applied Physics –**The Foo Foundation School of Engineering and Applied Sciences

Bachelor of Sciences in **Mathematics and Physics** –The University of Richmond

**Relevant Coursework**

Computer Science  *Advanced Programming, Data Structures, Modeling Social Data, Intro to Quantum Computing*

Mathematics  *Linear Algebra, Abstract Algebra, Real Analysis, Complex Analysis, Fourier Analysis, Probability*

*Statistics, Game Theory, Calculus 1-4, Partial Differential Equations*

Physics ­ *Plasma Physics 1&2, Applied Electrodynamics, Quantum Physics of Matter, Thermodynamics,*

*Systems Bio, Classical Mechanics, Fluid Dynamics, Lab Work in Plasma Behavior, Thesis on*

*modeling the behavior of moving disc with six degrees of freedom*

**Relevant Experience**

*Junior Developer at Lamp Camp* **2015-2016**

* sdfsd

Administrative Assistant*,* **The Harriman Institute,** Columbia University **2013-2015**

* Head of AV at 2014 and 2015 ASL conferences

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

* 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 by conducting TK

*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
* Created accurate, accessible presentations and papers

**Projects**

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

* 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 by conducting TK

*2 year summer research fellowship,* **University of Richmond**

* 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

**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, PHP/mysql, 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. Can turn problems into simple, interactive solutions in Mathematica

**Personal**

Native Russian Speaker

* Fluent reading and writing ability, happy to recite Russian Poetry, especially partial to works of Esenin and Pushkin

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

* TK

Tutor*,* **Professional Tutors,** Summer 2013

-Worked primarily with students in impoverished neighborhoods to raise SAT scores, and learn basic math

and reading skills with clear, concise language and a fair share of patience.