Max Grinchenko
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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**

- Programming in an MVC framework to test, modify, and implement enterprise level software using the latest API's from companies such as Magento, Amazon, and eBay.
- Working with a team in an Agile environment fully supported by GIT integration; increased team productivity be creating shell scripts to update and rebase file folders automatically
- Designing, building, and Query MySQL tables to manage customer order information and control task management

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

- Head of AV at 2014 and 2015 ASL conferences
- Implemented R data analysis and graphing on World Trade Data to aid with research

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

- Coded log bin and linear bin histogram conversion tools into GUI's, created data analysis software including graphing software designed to separate information into intuitive displays.
- Debugged experimental software, ranging in length from two to four thousand lines by conducting live tests

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

Current Web Projects

Completed

> **AnichkovMostTravel.com :** Travel website demonstrating CSS and JQuery design sensibilities. Small backend php component allows for information request about certain travel locations

In Production

> **PushRevolution.com:** A website built on Ruby on Rails created to connect and inspire social movements
> **AleahStories.com:** Website demonstrating advanced JQuery ajax techniques in lieu of traditional links
> **MaxGrinchenko.com:** Personal website build in the Laravel Framework (PHP)

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, simulation of quantum computation problems, and a working color map of Marta Bus Routes. 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

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.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**
- Led by example as best as I could, to this day the only was I know how to be a leader

Tutor*,* **Professional Tutors**   **2013-2105**
- Communicated complex ideas and created new teaching methodologies based on student need
- Learned the importance of patience, and gained a greater appreciation for the education I was lucky enough to have.