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### **EDUCATION**

Cornell University Ithaca NY, PhD Applied Mathematics (expected 2016)

Graduate Courswork

Dynamical Systems Probability Real Analysis Statistical Mechanics

Matrix Computations Computer Graphics

Reed College Portland OR, BA Physics May 2008

Senior Thesis: Modified Electrodynamics: Fixing Relativistic Field Theories

Undergraduate Coursework

Multivariable Calculus I & II Linear Algebra Abstract Algebra
Ordinary Differential Equations Complex Analysis Real Analysis

Classical Mechanics Electrodynamics I & II Classical Field Theory

Quantum Mechanics I & II

Computer Experience

Proficient in Ruby, Python, Java, JavaScript, SQL, HTML, MATLAB, Mathematica, R, git, IATEX Some experience with C, OpenGL, GLSL, Illustrator, Photoshop

### **EXPERIENCE**

Research Assistant, Cornell University, Ithaca NY, Jun 2012–Aug 2012

Working under Prof. Ginsparg, developed and implemented a python based program to perform an entropic analysis of documents in the arXiv e-print database, yielding short and long time-scale language patterns .

Teaching Assistant, Cornell University, Ithaca NY, Aug 2011–May 2012

Spring: grader for introductory course in real analysis. Fall: lead teaching assistant for introductory course in programming with MATLAB.

Junior Software Developer, Intersect.com, Seattle WA, Sep 2009–May 2011

Worked with team of six developers to build a web platform for community journalism. Responsible for code development (HTML, CSS, JavaScript, ruby, SQL, C), fixing defects, QA, data-analysis; designed and implemented spectral clustering of geo-temporal data and content ranking system.

Fabrications Assistant, to Gerri Ondrizek, Reed College, Portland OR, Aug 2008-May 2009 Assisted Prof. Ondrizek in the fabrication and installation of her art work; tasks included paper making, steel and aluminum fabrication, general assembly and installation

**Editorial Associate**, under Dr. Joel Franklin, Reed College, June 2008–Aug 2008, June 2009 Performed comprehensive editing, for accuracy, style, and content, of his undergraduate physics text, *Advanced Mechanics: An Introduction to General Relativity*, Cambridge University Press. Aug 2010; wrote, edited, and typeset portions of the solution manual

REU Fellow, Santa Fe Institute, Santa Fe NM, June 2007–Aug 2007

Conducted independent research under Dr. Eric Smith concerning the plausibility of a metabolismfirst scenario for the origin of life and graph theoretic formalisms for describing chemical reactions.

Nuclear Reactor Operator, Reed Research Reactor, Portland OR, Aug 2005–May 2006 Responsible for reactor operation, sample preparation, operator training, and emergency response

# PATENTS (PENDING)

Inventors: Peter Rinearson, Kristofor Selden, Michael Flashman US 20120005209, SYSTEMS AND METHODS FOR IDENTIFYING INTERSECTIONS USING CONTENT METADATA

## **HONORS**

Phi Beta Kappa, Reed College, 2008 Commendation for Academic Excellence, Reed College, 2005–2008 California State Arts Scholar, 2004 High School Salutatorian, 2004

### WEB

cam.cornell.edu/~mtf53
github.com/flashman
bonerbucks.org

## INTERESTS AND ACTIVITIES

ceramics (9 yrs.), sculpture (5yrs.), soccer(14 yrs.), taxidermy (3 yrs.), bm(2 yrs)