

# Damian A. Ball

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+1 (253) 278-2342  
contact@damianball.com

## Education

- University of Idaho** [Moscow, ID]      Planned: August 2012  
Masters of Science: Computer Science
- University of Idaho** [Moscow, ID]      December 2010  
Bachelors of Science: Mathematics
- University of Idaho** [Moscow, ID]      May 2009  
Bachelors of Science: Computer Science

## Technical Skills and Knowledge

### Operating Systems:

Proficient using Linux (Debian), Windows, Mac OS X

### Computer Languages:

Proficient in Java, PHP, UNIX Shells, SQL  
Working knowledge of C++, C#

### Tools and Systems:

Proficient in GIT, SVN, MySQL, Code Igniter, CakePHP

### Professional Knowledge:

Academically trained in cryptography, system security, high level design, process design

## Experience

### **Gree International (Funzio)** [San Francisco, CA]

Analytics Engineer: Jan 2012–present

Instrumenting applications with analytics hooks, designing data collection/manipulation/storage services, and generating/testing statistical models on revenue data  
Funzio was acquired by Gree International in May 2012

### **University of Idaho: Computer Science** [Moscow, ID]

Researcher: 2009–2011

Researching computational biology using a 454 sequencer  
Teaching laboratory sections of introduction to programming in C++

### **University of Idaho: Center for Teaching Innovation** [Moscow, ID]

Computer Consultant: 2005–2009

Designing web applications and developing new web content  
Performing maintenance and developing scripts for servers

### **Hepatitis Resource Network** [Puyallup, WA]

System Administrator: 1998–2005

Managing and maintaining user accounts and network operations  
Creating and updating website material

## Projects and Coursework

### Programming Applications

#### **Exam Creator, Personal**

Designed and implemented a multi-user, MySQL backed, web-based application that allows users to create, organize, and store questions for exams. Users can generate randomized exams using the stored questions. Users can pay for yearly access through [www.examsuite.com](http://www.examsuite.com) which maintains the database of user accounts separate from Exam Creator. A federated service allows Exam Creator to validate user access.

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## Research and Analysis

### **Ramsey Theory, Undergraduate**

Ramsey theory is concerned with preserving characteristics of integer sets as those sets are separated into distinct subsets, frequently called colors. Researched Ramsey theory and used evolutionary computation to evolve potential solutions to a Ramsey number that is unknown.

### **454 Sequence Alignment, Graduate**

Improved DNA sequence alignments using data uniquely produced by the Roche 454 Sequencer. Created an algorithm that combined Smith-Waterman, Needleman-Wunsch, and modified the scoring mechanism from a sum of log probabilities to a Euclidean distance to better fit the continuous space of the data produced by the 454 machine.

### **Linguistic Analysis of 2008 presidential elections, Graduate**

Implemented a program that harvested all of the major news organization's published articles from 2003 to present, built a dictionary of words for a given article, and recorded the frequency of specific words that had gender and emotional value. Used statistical analysis to determine if certain media groups treated candidates differently, depending on gender.

## Group Work

### **Tower Lights 2010**

Produced one of the largest and most unique displays of campus pride the University of Idaho has ever seen. Used skills with programming, network communication, arduinos, design, and human interaction to synchronously light up windows to music in a residence hall at the U of I. More at: [towerlights.uiacm.org](http://towerlights.uiacm.org)

## Teaching

### **JEMS Instructor**

Taught engineering, math, and science at a summer camp for senior high school students. This year the students built model cars and controlled those cars using arduinos (an open-source hardware development platform) programmed in C. Was responsible for teaching Computer Science and Computer Engineering. Integrated servos, motors, LEDs, and light sensors into a custom model vehicle.

### **CS120 Lab Instructor**

Responsible for teaching the introductory C++ Computer Science course. Generated lessons, taught, and graded. Covered variables, conditionals, loops, functions, arrays, pointers, and object oriented design.

## Honors

College of Engineering scholarship for student leadership (2011)

College of Engineering Dean's List (2008)

American Civil Liberties Union 4-year scholarship for student activism (2003)

## Activities

Appointed to the Supervisory Committee of Latah Federal Credit Union (2011-2012)

Served as the president of the UI chapter of the Association for Computing Machinery (2010-2011)

Student member of the UI Math Department Tenure Committee (2010)

Elected to RHA VP of Marketing and Communications (2006-2007)

Assistant coach of Troy tennis team (2006)

Appointed to ASUI Facilities and Operations Board Chair (2003-2004)

Elected as Snow Hall President (2003-2005)

Violinist in University Symphony Orchestra (2003-2009)

## Find me on

<http://www.damianball.com/>

<http://www.linkedin.com/in/damianball>

<http://stackoverflow.com/users/301031/damian>

<https://github.com/damianball>