# **Zachary Lorenzen**

#### **Technical Skills**

Languages: Java, C#, C, C++, Scheme, Prolog, Python, LaTeX, SQL, BASH, Groovy Software: Microsoft Office, Eclipse, Unity, Blender, SPSS, VIM, Visual Studio, SVN

OS: Windows, Ubuntu Linux

# **Relevant Projects**

Rapid Prototype - <u>Troncano</u> (Unreal Engine 4, Blueprints Visual Scripting)

December 2014

A 3D platformer where the player is able to push and pull themselves off of pieces of the environment to move around.

## Rapid Prototype - No Gamer Left Behind (Unity 2D & C#)

November 2014

Prompted by PC Gamer's report that women now make up over 50% of pc gamers across all genres, No Gamer Left Behind is a platformer with the purpose of spreading this news.

Computer Science Capstone Project (Undergraduate) – Dias (Unity 3D & C#)

May 2014

Dias is a fully 3D,team-based, competitive multiplayer, arena platformer.

Development blog: diasdev.blogspot.com

## Software Engineering - HAM (Python, Django, MySQL)

May 2014

Home Automated Management provided remote home management to clients, which allowed them to turn lights on and off, and other basic functions.

Development blog: hambvu.blogspot.com

# Summer Research - <u>Data Compression Research</u> (Java)

Summer 2013

I developed and tested a new lossless data compression algorithm with Dr. Stone, a professor of physics and computer science at BVU. We tested the new method against static and adaptive Huffman algorithms, the Shannon-Fano algorithm, and others.

### Regression Analysis – Competitive Gaming and Speed (SPSS)

May 2012

I collected data from over two thousand Starcraft players on how fast they play, their age, and other factors that relate to their gameplay.

#### **Work History**

Academic Assistant at Buena Vista University

September 2011 : May 2014

- Tutored algebra, calculus, and other math courses.
- Proctored classes and assisted professor.

Farm Hand at Lorenzen Farms

2006 : September 2010, May 2016 : October 2018

Cattle, Swine, and Crops.

#### **Education**

M.S. Buena Vista University Corporate Mathematics & Computer Science/Mathematics May 2014M.E.A.E. University of Utah Entertainment Arts and Engineering Master (Incomplete)May 2015