Isaiah Hines

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Objective

A position writing framework or implementation level software for a video game.

Education

The University of Michigan Fall 2012 – Spring 2014
Masters in Artificial Intelligence - Computer Science Engineering
GPA: 3.89

The University of Michigan Fall 2009 - Spring 2012
BSE in Computer Science Engineering
GPA: 3.698

The University of Michigan - Flint Fall 2007 - Spring 2009
Studied Computer Science and Physics
GPA: 3.80

Work Experience

GSI for EECS 587 "Parallel Computing" Fall 2013
Currently helping as the sole graduate student instructor for this supercomputing course. I'm teaching discussion sessions on Fridays and am responsible for grading homework and programming projects.

Microsoft Studios Internship Summer 2012
Prototyped a new game in an existing franchise on the Windows 8 tablet.

GSI for EECS 281 "Data Structures and Algorithms" Winter 2012
Helped as a graduate student instructor. Taught 2 discussions per week, and helped to create the course projects.

GSI for EECS 587 "Parallel Computing" Fall 2011
Helped as the only graduate student instructor, teaching discussion sessions on Fridays and grading homework and programming projects.

Microsoft Studios Internship Summer 2011
Worked with a team of 12 interns on building a tech-driven Kinect game called Pomari. A large part of my code dealt with handling Kinect sensor data.

Student Undergraduate Research Summer 2010
Performed AI research at the University of Michigan, programming intelligent agents for Unreal Tournament 3 using the Soar cognitive architecture.

Lab Assistant for Principles of Physics II Winter 2008
Assistant to the professor in an Electricity and Magnetism lab.

Current Projects

IMGE – A pc gaming system that handles multiple games, controllers, and users.
Mario – A Super Mario remake with great character movement and level editing.
MyCraft – A Terraria remake with a recursive support structure algorithm.

Game Projects

"Super Smash Bros" – Java Programming Course Fall 2012
A Super Smash Brothers remake written in Java that contains three characters, four stages with up to eight players, and was voted best application in the class.

"Coriolis Station" – Sid Meier's Video Game Bootcamp Spring 2012
A 2D platformer set on a rotating space station where a robot must solve puzzles while dealing with the unique artificial gravity.

"Battle Bender" – Video Game Design Course (3rd Project) Fall 2011
A 3D four-player battle game similar to a Mario Kart battle containing Super Mario Galaxy-like gravity. The game placed first in a video game showcase.

"Puzzle Jumper" – Video Game Design Course (1st Project) Fall 2011
An automatic side-scrolling medallion collecting game where levels are unlocked as you achieve multiple objectives and rank up.

Other Projects

Independent Study Research Fall 2010
Connected the Infinite Mario game to the Soar cognitive architecture and created AI agents that functioned using reinforcement learning and episodic memory.

Code Analyzer Fall 2009
Researched and designed a program to validate code. The library redefines variable arithmetic operations as operations within an infinite set and manages possible divergent future spaces. When the program finishes running, all of the possible mappings from input to output are shown.

Summer Robotics Course Summer 2009
Implemented artificial intelligence techniques to control a floor robot in real world environments on the Flint campus.

Replicator Winter 2009
Designed and built a program in C which encrypts itself in a self-referencing format that was designed to be similar to that of RNA. Running versions would mutate their own encrypted code to create several newer functioning copies.

Physics Research Summer 2008
Helped design and create an arc discharge chamber to attempt the creation of the theoretical C16N12 molecule. Analysis was accomplished through the use of a Scanning Tunneling Electron Microscope and an Atomic Force Microscope.

TheDSCentral.com 2005 - 2006
Co-owned this Nintendo DS video gaming website for over a year. I was responsible for designing, writing, and maintaining the HTML, CSS, and JavaScript necessary to run the website.

International Experience

Traveled to Brazil, Romania, and several US states to teach the art of puppetry to local communities. I was on the puppet team for several years during high school. Lived in the Central African Republic from age 3 to 5.