

WILLIAM SKYLER GARRISON

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PROJECTS

Maze Game *Java, Android, XML, SVN*

Navigate out of a randomly generated maze rendered in first person

- Analyzed existing code base for a PC maze game, researched and implemented Prim's and Eller's algorithm in Java to create playable mazes. Standardized game processes utilizing OOP principles such as inheritance, abstract classes, and interfaces
- Developed the game over four months, regularly setting and achieving goals to improve game functionality, collaborating with fellow developers, and utilizing SVN version control
- Refactored the PC game into a fully featured Android application including multimedia integration, touch controls, and automated maze-solving algorithms

Perl Find Utility *Perl, Vim, Unix, SSH*

Rewrote bash 'find' and 'grep' utilities

- Researched bash 'find' and Unix file system traversal to engineer a copy of 'find' in Perl
- Added support for regular expressions and several user input parameters, mimicking bash command syntax and functionality
- Rewrote bash 'grep' in Perl and integrated it with my Perl 'find' to add 'grep' functionality

Ray Tracing Spheres *C, C++, Vim, SSH*

Rendered colored spheres with 3D lighting

- Rendered flat, colored spheres to a bitmap file in C utilizing ray casting from a fixed point of origin
- Augmented and refactored the original functionality in C++ using ray tracing techniques to add lighting effects from multiple sources, with mutable points of origin, rendering 3D spheres

WORK EXPERIENCE

Beecher's Handmade Cheese

Cheesemaker and Affineur

Seattle, WA

March 2018 | Present

- Produced up to 5,000 pounds of cheese daily, operating the 24-hour production floor as part of an interdependent team of 20 cheesemakers
- Attained Dairy Technician license in the state of Washington and 2nd place at the American Cheese Society Awards for cheese curds

Nanning Gaojie Education Consultants Group

High School Teacher - Grades 10-12

Guilin, China

July 2017 | August 2018

- Developed and taught English-language coursework adhering to US standards in Arts, English, History, Physics, and Computer Science classes of 8 to 40 Chinese students
- Collaborated with peers and management to create the first US-oriented high school prep program in Guilin, standardizing expectations and assessments appropriately
- Tutored students in writing, computer science, and college applications, resulting in 33-50% test score increases and all students' admission to college, including a US News Top 25 university

EDUCATION

The College of William and Mary

BA East Asian Studies, Minor in Computer Science in Computer Science

Williamsburg, VA

August 2011 | May 2016

- Monroe Scholar - Top 5% of class
- Co-president Japanese Culture Association 2014-2015

Akita International University

One-Year Study Abroad

Akita, Japan

August 2013 | July 2014

SKILLS

Programming Languages: Java, Python, Perl, C, C++, HTML5, JavaScript, XML, CSS
Technologies: Android, Linux, Unix, Vim, SVN, Git, \LaTeX , SSH
Languages: English, Japanese