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extras

in saejinmh
michionlion
michionlion.github.io

courses

- Intro to CS I & II
- Programming Language Concepts
- Theory of Computing & Formal Languages
- Software Testing
- Interactive Entertainment
- Principles of Computer Organization
- Analysis of Algorithms
- Artificial Intelligence
- Multi-Agent & Robotic Systems
- Foundations of Mathematics
- Linear Algebra

languages

C, C#, C++, Java, Lisp, Haskell, MIPS, HTML5, JavaScript (JQuery, NodeJS), CSS3

applications

Adobe Creative Suite, LaTeX, Unity3D, Android SDK, Linux/GNU

gpa

- Overall: 3.5
- Major: 3.814

awards

- Distinguished Alden Scholar

interests

artificial intelligence, compilers, computer visualization, game engines, interactive art, linear algebra, narrative-driven design, programming languages, robotics, software development, video game development, virtual reality development, virtual reality hardware-software interactions

education

since 2015 **Allegheny College** Meadville, PA
Computer Science Major, Studio Art Minor

experience

since 2016 **Computer Science TA** Computer Science Department, Allegheny
Answer questions and grade work in lower-level CS classes; help plan and create labs. Developed script tools to assist with grading.
Tools utilized: *LaTeX, Bash*

Apr–Jul 2015 **Carr Garden Android Application** Carrden Market, Allegheny
Created accounting and transaction application for Carrden Market. Using Java, developed a native Android application that uses Google APIs to sync accounting data and transaction histories among multiple tablets, along with generating reports and adding new transactions.
Tools utilized: *Java, Netbeans, Android Studio, Android SDK*

projects

since 2017 **>brainfuse** Programming Language
*Compiler, interpreter, & language extension of brainf**k*

- Programmed interpreter and compiler for and extension of extant language, brainf**k
- Implemented pre-processing directives, such as file inclusion, and am currently designing more complex psuedo-instruction directives to facilitate the generation of boilerplate code
- Developed multiple command-line tools and script utilities to simplify compiling and running >brainfuse code
- Tools utilized: *C, Bash*

Nov–Dec 2016 **Doorway** VR Art Installation
Art with Portals
Developed using the Unity game engine and Steam's Vive SDK, this project implements portal visualization through the use of shaders and matrix transformations. It attempts to evoke emotion of a stark and mysterious landscape. The user starts in a small room, with a 'portal' device in front of them, which leads to a bleak, tree-dotted landscape. The user can move back and forth through the portal at will.
Tools utilized: *Unity, C#, HLSL, Unity Shader Language, Vive SDK*