Josie Thompson

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Education

B.S. in Computer Science 2022
University of Washington Seattle, WA
Minored in Math and Digital Audio Art
Honors: Dean's List

Work Experience

Unreal Gameplay Engineer Timberline Studio Inc. April 2022 - November 2023

- Contributed to design and implementation of tech systems using Object Oriented solutions
- Worked with designers to communicate needs for features by closely reading specifications and asking clarifying questions
- Exercised skills in clear communication of goals, problems and research into potential solutions
- Used design specifications to write interfaces from C++17 code into UE5 blueprint scripts
- Rapidly prototyped and iterated on important UI features such as menus, notifications and item info
- Regulary contributed to the software lifecycle by reviewing code, sending pull requests, and providing hot fixes for bugs

Infrastructure TA Paul Allen School of Computer Science March 2021 - December 2021
Software Design and Implementation

- Utilized and modified command applications written with Python to publish course assignments within a tight schedule
- Resolved dozens of special case problems per week with students' Java, JavaScript and React assignments
- Managed organization for grading assignments for a class of nearly three hundred students
- Used CI/CD technology on GitHub, in tandem with test suites to update and maintain the course website on a weekly basis
- Graded 15-30 students each week as part of my normal TA duties
- Held Office Hours and helped teach supplemental sections for students to broaden their understanding

Personal Projects

SofaCollider HRTF Library https://github.com/josiest/SofaCollider

- Rapidly prototyped a basic library for processing multi-directional HRTF audio data with SuperCollider
- Formed creative solutions to interfacing between languages in order to use existing tools to accelerate project development
- Wrote tools to read a write data to and from a standard HRTF format into the SuperCollider runtime environment

ion library https://github.com/josiest/ion
A small-scoped framework for rapidly prototyping games with SDL using C++20

- Designed and implemented interfaces from low-level resources such as OpenGL shaders, into high-level resources
- Implemented a small event-handling interface to allow for flexible video game system implementation
- Wrote a series of interesting example games used to creatively showcase the abilities of the library

tess https://github.com/josiest/tess
A library for working with hexagonal grids in C++

- Implemented algorithms for working with unique mathematical norms in C++17
- Wrote projections to and from pixel space and hex space using concepts of linear algebra and spatial geometry
- Crafted carefully thought-out interfaces to make the library simple and intuitive to use
- Used library tools to create a procedural hexagonal map generation tool