Abby Welsh (she/her)

Game Developer & Programmer

Naturally curious programmer and game developer with a passion for solving problems creatively and efficiently. Working at Bungie with a fantastic team on Destiny 2. Built a non-euclidean puzzle game using raytracing with Vulkan for my senior project.

Personal Info

Location
Bellevue, WA

Phone
(610) 742-8624

E-mail
contact@abby.dev

portfolio
www.dubthink.com

LinkedIn
https://www.linkedin.com/in/abby-welsh

Skills

C/C++ — Advanced

Python — Excellent

Java — Advanced

OpenGL/GLSL — Advanced

Vulkan — Good

Blender — Advanced

UE4 — Good

Unity — Some Experience

Small Group Communication — Excellent

Graphic Design — Advanced

Featured Courses

Computer Networking

3D Game Dev & Tech

Computer Vision

Computer Graphics

Formal Languages and Compilers

Graphic Design II

Artificial Intelligence

Interests

Team Fortress 2 Mapper

Competitive Team Fortress 2 Player

Portal 2 coop Speedrunner

Ballroom Dance

Education

Sep 2016 - May 2020

Ithaca College | Bachelors of Science in Computer Science

Minors in Graphic Design and Mathematics
3.8 GPA

Employment

May 2020 - Present

Gameplay Engineer | Bungie

- Developed clean and effective C++ code to implement and improve a variety of gameplay mechanics
- Coordinated with designers to assess requirements and develop technical specs
- As a member of shared engineering, developed skills to quickly familiarize myself with new areas and get up to speed quickly

May 2018 - Oct 2018

Research programmer | Ithaca College - Summer Scholars program

- Processed raw enrollment data into several graph models
- Developed creative ways of analyzing and interpreting the data using Markovian systems and forced-directed layouts
- Wrote interactive web-based and Java-based visualization tools
- Presented work to the Ithaca College community at the IC Data Day

Jun 2017 - Aug 2017

Project Intern | Perfect Prototype

Perfect Prototype creates interactive experiences for museum and exhibit environments
- Focused on stability due to the long-term nature of museum exhibits
- Built a shader-based image manipulation component of an interactive museum exhibit created with Unity
- Performed QA and provided constructive feedback on ongoing projects

Relevant Experience

Aug 2019 - present

Senior Project | Non-Euclidean Raytraced Puzzle Game

Build an engine using C/C++ to support non-euclidean environments
Simulate non-euclidean physics using the PhysX physics engine
Set up raytracing using Vulkan on an RTX card
Novel puzzle design in non-euclidean space

RGL.gg | Division Admin

RGL.gg is the premier NA Team Fortress 2 competitive league
Handled conflicts quickly and effectively
Participated in major decision-making discussions and processes
Authored rule documents and responses to sensitive situations

Ithaca College Game Development Club

Vice President Jan 2018 - May 2019

Game Jams

Participated in Global Game Jam in 2017 and 2018 and Ludum Dare 40 and 43

Published Content in Team Fortress 2

Designed, modeled, textured and rigged wearable medals for competitive leagues and tournaments that were added to the game

Independent Study with UE4

Created a C++ based portal system in Unreal Engine 4