DYLAN WASHBURNE

Gameplay Programmer

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EDUCATION

MS in Computer Science Aug 2020-(Expected Jul 2022)
DigiPen Institute of Technology Redmond, WA
Focus area: Graphics Programming
Current courses: Adv. Real-Time Rendering, Ray Tracing, Adv. Game Project

BS in Computer Science Sep 2013-Dec 2017
Oregon State University Corvallis, OR
Focus area: Simulation and Game Programming

ACADEMIC PROJECTS

Puzzle Platformer Game MS CS Semester Project Jan-Apr 2022
As a member of a 7-person team of students in the final semester of our MS CS program, we created an industry-standard computer game. First we developed a custom game engine in C++ with OpenGL for graphics. Currently in development, the final 3D game will include a feature-length campaign across multiple worlds.

Ray Tracing Engine MS CS Semester Project Jan-Apr 2022
Constructed a ray tracing engine from the ground up. This includes vector graphics, depth of field, and scattering. To improve runtime, it also includes implementation of a bounding volume hierarchy.

"ConCaveity" Stealth Platformer Game MS CS Semester Project Jan-Apr 2021
As a member of a 4-person team of MS CS students, we produced the game “ConCaveity.” The entire game and its associated tech were constructed in only 4 months. This included the development of a custom game engine in C++ with OpenGL for graphics; multiple gameplay prototypes from which “stealth platformer” was selected for continued development; and continued production all the way to shipping.

3D Environment Engine MS CS Semester Project Sep-Dec 2020
Constructed a custom engine for rendering high-fidelity 3D environments with optimizations to allow it to perform in real time. This included physically-based rendering, ambient occlusion, and volumetric lighting, alongside optimizations including deferred rendering and moment shadow maps. The end result maintained a high frame rate with pristine visual quality.

Vision Analytics Software for “Video Radar” BS CS Capstone Project Sep 2016-Jun 2017
On a 3-person team of BS CS students, we were contracted by a client to create a software application in C# for Windows .NET called “Video Radar.” The software ran on a PC connected to a Microsoft Kinect motion sensing input device. The final product tracked, calculated, and displayed real-time velocity of multiple moving objects in the PC dashboard.

EXPERIENCE

Software Engineer Mar 2018-Jun 2020
New Relic, Inc. Portland, OR

- Tools and Workflow Engineer - Developed software solutions and analytics for engineers and managers company-wide.
- Jira Administrator - Managed company workflow projects in Golang; provisioned users; created filters; configured project layouts, workflows, dashboards & risk matrices.
- Deployment Engineer - Implemented Kubernetes and Spinnaker frameworks for the company's new engineering deployment pipeline, funneled through our existing Kafka infrastructure.
- DevOps Support - Served as DevOps support across the organization. Involved in continual inter-team communication and collaboration. Worked on specialized projects to serve other team members across the organization.

Summer Software Engineering Intern Jun-Sep 2015
CDK Global Portland, OR

Worked in an agile environment & developed a responsive web app in AngularJS that called a RESTful API of my creation to present data to managers.

FIRST Robotics Summer Intern Jun-Sep 2012
Autodesk Portland, OR

Created a website & video to promote Autodesk Inventor for HS robotics students.

Languages	Game Development	Graphics	Project Management
● C++ ● C# ● Java ● Go ● Ruby on Rails	● Custom-Built Engine ● Unity ● Unreal 4 ● Game Maker	● OpenGL ● DirectX ● GLSL ● RenderMan	● Jira ● Slack ● Git