

Clay Evans

Portland, Oregon

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SKILLS

Software Engineering || Full-stack desktop/web/mobile app development, PC/mobile/VR game development, graphics development, database development, socket programming, software design, game design

Languages || C++, C#, Python, Java, Javascript, HLSL, SQL, JSON, XML, HTML, CSS, bash, MIPS, IA-32

Tools || Unreal, Unity, DirectX, ReactJS, Visual Studio, Xcode, Eclipse, Android Studio, Git, Perforce, Jira, Slack

Mathematics || Linear Algebra, Discrete Mathematics, Integral and Differential Calculus

WORK EXPERIENCE

Interactive Developer, PixelPool

Portland, OR — Unreal, C++, SQLite, Objective-C — July 2018 - present

- Worked in a multinational Agile development team for top fashion retail brands worldwide.
- Interfaced with clients to help steer the design and development of multiple applications.
- Developed applications for Windows, iOS, GearVR, and MacOS platforms.
- Developed in the Unreal Engine using C++, Objective-C, and Blueprints with an SQLite database.
- Created tools within the Unreal Engine and in python, Windows batch scripts, and Windows Forms apps to automate asset production processes to support the company's production team.
- Designed and implemented a cloud-based asset and data distribution system using the S3 REST API.
- Integrated third-party libraries for PDF and Excel document reading and writing.

Workshop Facilitator, Digital Nest

Watsonville, CA — Arduino, C — May-June 2018

- Developed and taught an 8-week Unity game development course.
- Worked with students one-on-one on their game projects.

Teaching Assistant, CSUMB School of Computing & Design

Marina, CA — [DirectX, C++, HLSL], [Unity, C#] — June-August 2017

- Developed and taught course materials for a graphics programming class and a VR game jam.
- Created an easy-to-use VR prototyping framework in Unity for use by participants of the game jam.
- Helped students one-on-one with design and programming problems.

EDUCATION

California State University, Monterey Bay (CSUMB), Seaside, CA

Bachelor of Science, Computer Science (with distinction) — December 2017

- Founding member of the university's Game Research Lab.
- Coursework: Capstone (python, JavaScript, SQL, JSX, HTML, CSS), Software Design (Java, SQL), Networking (python), Graphics Programming (DirectX, C++), Game Engine Programming (Unity, C#), Advanced Game Programming (Unity, C#), Operating Systems (C, bash), Architecture (C, MIPS), Algorithms (C++), Multimedia Design and Programming (python), IoT Course (Arduino C)

PROJECTS

Researcher, Rendering Optimizations for Real-Time Global Illumination Systems

Research — DirectX, C++, HLSL — June 2016 - August 2017 — [#research](#)

- Developed a global illumination system that supports partial scene updates with minimal loss of lighting quality, resulting in a 30% decrease in render time over existing methods.
- Designed and implemented:
 - compute shaders to fill octrees with lighting information and run the VXGI algorithm,
 - tessellation and geometry shaders to decrease the volume of lighting information,
 - partial scene updates to speed up frame processing, and
 - voxel count prediction and bit packing to optimize memory usage.

Game Developer, Enkindle

Course: Game Engine Programming — Unity, C# — Fall 2016 — [#enkindle](#)

- Worked in a multinational simulated studio team to develop an original art game in Unity.
- Developed a terrain deformation algorithm to simulate melting snow, a procedural tree cluster generation algorithm, and alternate keyboard controls for the phoenix.
- Released the game on itch.io for Windows and Mac platforms.

Shader Developer, Procedural World Generation Project

Course: Graphics Programming — DirectX, C++, HLSL — Spring 2016

- Wrote shaders for lighting techniques such as volumetric lighting, shadow mapping, and HDR rendering for implementation in a procedural world generation project.
- Integrated the shaders with procedurally-generated maps, foliage, and water to create a procedurally-generated world.