William Blanchard

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Education:

Iowa State University, Ames, IA | B.S. Computer Engineering | GPA – 3.86 (Dean's List)
Graduated December 2022 – Magna Cum Laude

Technical Skills:

Professional Experience: C++, Unreal Engine 4 and 5, Git, CMake, OpenCV, CUDA
Classroom Experience: Java, Unity Engine, Cinema4D, KiCad, OpenCL, VHDL
Personal Experience: Python, Blender, HTML/CSS, JavaScript

Employment and Leadership Roles:

Computer Engineer, Design Mill Inc.   May 15, 2021 – Present
- Implementing tools and features for a cloud-based LiDAR pointcloud application using the Unreal game engine
- Communicating with and presenting to clients for project progress updates and showcases
- Migrating Unreal Engine projects between versions (UE4 to UE5, UE5 to UE5.1)
- Receiving and utilizing feedback from team leads on my work in order to continuously improve

Undergraduate Assistant, Iowa State Virtual Reality Applications Center   Sep 16, 2019 – May 15, 2021
- Collaborated with a team to develop an application that tracks objects' poses in 3D space using a library for a Microsoft Kinect RGB-D camera in C++
- Utilized stress tests and random number generators to develop errorless code by applying knowledge of linear algebra
- Designed and implemented demo applications to show the use cases of the code libraries being developed
- Modified and organized existing C++ code for use on the GPU using Nvidia CUDA

Recording Secretary, IEEE-Eta Kappa Nu   August 13, 2020 – May 15, 2021
- Collaborated with a team of leaders to refurbish the HKN Nu chapter at ISU
- Maintained notes of chapter meetings and calendars, assisting in the administration of help room appointments
- Assisted in the backend development of the HKN Nu chapter website

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Projects:

Senior Design Project – Memworld (sddec22-18.sd.ece.iastate.edu)
- Teamed up with peers to optimize an existing C-implemented memory-based rendering engine by utilizing the OpenCL library
- Researched other tools and existing implementations of rendering engines to help improve our strategy
- Developed a test application and presented it to an industry panel to show the engine's capabilities

Godot Game Engine Contribution
- Follow community guidelines and collaborate with other contributors to formulate and implement fixes to user-submitted bugs for a game engine written in C++
- Use a debugger to step through engine processes and discover the sources of faulty engine behavior

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Honors and Awards:

Awards: Eagle Scout w/ Bronze Palm, Arthur A. Collins Education Fund in Engineering
Honors: IEEE Eta Kappa Nu Honors Society (member as of 2019), Tau Beta Pi (member as of 2021)