

Robert Keller

<https://rkiv.github.io/> | robertkelleriv@gmail.com | <https://www.linkedin.com/in/rkiv/>
734.578.7411 | 424 North State Street Ann Arbor, MI 48104

Education

University of Michigan, Ann Arbor MI Expected: April 2023
School of Engineering, Computer Science Engineering Undergraduate - GPA: 3.86/4.0

- Fall '19 Courses Included: EECS 280 Programming and Data Structures, EECS 203 Discrete Math
- Winter '20 Courses Included: EECS 281 Data Structures and Algorithms, MATH 215 Multivariable Calculus
- Fall '20 Courses Include: EECS 376 Foundations of Computer Science, Physics 240 E&M

Greenhills School, Ann Arbor, MI - Unweighted GPA: 3.9/4.0 2015-2019

- FIRST Robotics - Co-Captain; 4 Year Varsity Athlete - Tennis & Soccer; Film Club - Founder/President

Skills

- Proficient in C++, C
- Source Control: Perforce, Git LFS
- Task Management: Jira, Trello, Gitlab Boards
- Tools: Visual Studio, Valgrind, VSCode
- Proficient in Unreal Engine
- Familiar with D3D11 and Unity
- Familiar with C# and Python
- Familiar with WPF, XAML, and MVVM

Projects & Experiences

Project Lead July 2021-Present
Personal Protective Equipment Detection with Azure Kinect (C#, WPF)

- Designed multi-threaded layer to interface with multiple Azure Kinect cameras for future applications
- Designed readable UI to allow medical professionals to easily determine if they have correctly applied PPE
- Built a visual model using Azure Computer Vision services in order to detect improperly applied PPE

Level Designer and Gameplay Programmer January 2021-May 2021
Mogu - 2D Puzzle Platformer (C#, Unity) Team of 5

- Designed and iterated upon numerous unique puzzles to explore new ideas with our unique mechanic
- Released game on itch.io winning us Best Game Overall for the semester of W'21 in EECS 494

Lead Gameplay Programmer and Level Designer September 2020 - Present
ThreePM (working title) - 3D Rhythm Platformer (C++, Unreal) Team of 2

- Designed and programmed custom movement from the ground up in C++ to facilitate precise and reliable movement which can be synced to a song.
- Designed elaborate levels that have the player fluidly match their movements to the beat of the song
- Developed extensive debugging tools to allow for easy refinement of movement
- Profiled extensively to ensure that the extremely detailed levels didn't impact performance

Lead Programmer February 2020 - Present
Ross VR Network Visualization (C#, Python, Unity) Team of 5

- Researching 3D social network visualizations with a team of computer scientists in Unity for Ross Business School
- Product goals include network research paper and app to assist others in network analysis

Gameplay Programmer 2019-Present
Circuitry, Desolation Place, and IO (C#, Unity) Team of 15 - 30

- Built 3 full 2D and 3D games from start to finish in Unity with a team of more than 30 other students
- Developed internal scripts that allowed for designers to quickly iterate and implement different designs

DX11& DX12, Graphics Programmer (C++) 2018-2019

- Interacted with low-level processes and DX11 & DX12 API's to develop 3D rendering engines

FIRST Robotics, Lead Programmer and Driver (Java) 2016-2019

- Developed an object-oriented application using design structure in Java to program industrial-sized robot to compete in the international robotics competition
- Led robotics team to winning district competition and qualifying for the FIRST Robotics Worlds Competition in Detroit, Michigan 2019