

# Caleb Biasco

## GRAPHICS PROGRAMMING INTERN

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### Education

**CARNEGIE MELLON UNIVERSITY, ENTERTAINMENT TECHNOLOGY CENTER** · PITTSBURGH, PA

**Master of Entertainment Technology**

**Expected Spring 2019**

**UNIVERSITY OF MINNESOTA, TWIN CITIES** · MINNEAPOLIS, MN

**Bachelors of Science, Computer Science**

**Spring 2017**

· *Notable Courses:*

Computer Graphics · Programming Graphics and Games · User Interface Design, Implementation, and Evaluation  
Algorithms and Data Structures · Program Design and Development · Advanced Programming Principles

### Skills

**Programming Languages:** C · C++ · C# · Java · JavaScript · Python · Assembly · LISP · OCaml

**Graphics Engines:** Unity · Unreal Engine · Godot · GameMaker: Studio

**Graphics-Related Skills:** Physical simulation · Motion planning · Raytracing pipeline development · OpenGL development

**Production Software:** Rhinoceros · Photoshop CSS · Vegas Pro · Audacity · Open Broadcaster Software · Microsoft Office

**Source Control Software:** Perforce · GitHub

**Languages:** Spanish

### Academic Projects

**Building Virtual Worlds, Programmer** · **Entertainment Technology Center**

**September 2017 – Present**

- Designing and implementing the software of interdisciplinary projects through rapid prototyping
- Collaborating on a team of five to craft an entertainment experience within one to two weeks
- Serving the group intelligence of a highly diverse and creative team by urging participation and working on the given ideas

**BPOC · Senior Software Project**

**September 2016 – May 2017**

- Designed and planned a project using Scrum with a professional adviser and the support of Microsoft
- Implemented usability features with mobile technology such as GPS
- Contributed to databases and web development under the guidance of the more experienced team members

### Personal Projects

**EarthBeat · Global Game Jam 2017**

**January 2017**

- Developed an asymmetric multiplayer VR game for the Vive in 48 hours using Unity
- Quickly established a team pipeline and communication hierarchy for an eleven-person team
- Assisted with shaders and game logic programming and lead the heart rate monitor integration

**UnWelcome · Video Game Development Club**

**Spring 2016**

- Planned and developed a 2D agent-based strategy-action game with a large team of students
- Integrated PRM-based follow-the-leader pathfinding for many agents that would perform quickly
- Wrote in-game debug tooling and expanded on unfinished art assets using GIMP

### Relevant Experience

**Liberal Arts Technologies & Innovation Services** · Minneapolis, MN

**Student Tech Support**

**September 2016 – August 2017**

- Researched ways to support digital humanities projects in interactive mediums like Unity and Unreal Engines using virtual and augmented reality
- Synthesized 3D research data and assets into a presentable form using Autodesk 3DS Max and Maya

### Selected Extracurricular Activities

**Member and President, Video Game Development Club** at the University of Minnesota

**Fall 2014 – May 2017**

- Contributed to club projects in programming in Unity and GameMaker: Studio and art using Inkscape and GIMP
- Managed club officers and membership, oversaw daily operations, supervised event planning, and maintained club relations