

# Aidan Buffum

www.abuffum.com | aabuffum@gmail.com

## Education:

**Worcester Polytechnic Institute (WPI), Worcester MA**

**Bachelor of Science: Computer Science & Interactive Media and Game Design**, GPA 3.56/4.0, May 2020

**Related Coursework:** Digital Game Design I & Studio, Technical Game Development I & II, Object-Oriented Design Concepts, Systems Programming Concepts, Operating Systems, Calculus I-IV, Probability for Applications, Applied statistics, Discrete Mathematics, Algorithms, Intro. To Artificial Intelligence, A.I. for Interactive Media and Games, Human Computer Interaction, Novel Interfaces for Interactive Systems, Design of Tabletop Strategy Games

## Skills:

**Programming Languages:** C#, Java, Scala, C++, C, CSS, JavaScript, Python, SQL, Visual Basic, Scheme

**Applications:** GitHub, AWS (Lambda, RedShift, S3, QuickSight), Microsoft Office, Google Suite, Unity Engine, Unreal Engine, GameMaker Studio, Adobe Photoshop, Autodesk (Max, Maya), SolidWorks

## Projects:

**Quilt Generation for Computer Science Education**, WPI, January 2018 – Present

Working in a lab environment developing an application to procedurally generate and modify quilt patterns to introduce computer science concepts to crafting communities. Utilizing and building frameworks built in Java and JavaScript. Designing two unique systems using genetic algorithms and user-defined replacement rules to generate and modify patterns. Running user interviews for feedback on the direction of the project. Structuring interactive educational workshops for various focus groups.

**Major Qualifying Project (MQP): Asymmetric Echolocation Virtual Reality Game**, WPI, May 2019 – Present

Developing a competitive party game for virtual reality (VR) systems. Balancing asymmetry between a flying bat player in VR and several grounded hunter players on computers. Translating echolocation into a VR friendly visual model. Utilizing spatialized audio to enhance player experience.

**Interactive Qualifying Project (IQP): WPI at PAX East 2018**, WPI, November 2017 – April 2018

Organized and ran an informational booth at Penny Arcade Expo East 2018 for the Interactive Media and Game Development program at WPI. Recruited and managed volunteers. Highlighted exemplary student work. Developed a marketing pitch to be used alongside the booth. Drove prospective student applications.

**Technical Game Development: Dragonfly**, WPI, August 2017 – October 2017

Planned and created a game engine from the ground up in C++. Worked with the SFML graphics library to create ASCII-based graphics and a friendly user interface.

**The Game Design Process: Wizards vs Robots**, WPI, August 2016 – October 2016

Worked in a team to design and develop a functional video game prototype in GameMaker Studio. Created original visual assets and code. Managed player state and branched gameplay based on player decisions.

**Senior Project: Robo Race**, Barrington High School, August 2015 – May 2016

Designed and created a working prototype of an educational board game to teach logical and critical thinking for children aged 5 to 14. Designed cumulative rulesets for different age groups to maintain educational and replay value. Organized and ran playtesting sessions for the game's target demographics.

## Work Experience:

**Software Development Engineer Intern**, Amazon, June 2019 – August 2019

Built an internal AWS tool for measuring metrics on Amazon's Marketplace Appstore. Consolidated and moderated several massive datasets. Automated data pipelines for client-side metrics.

**Student Teaching Assistant**, WPI, August 2018 – Present

Holding weekly office hour and help sessions for various computer science and interactive media courses at WPI. Solving students' problems in a timely and efficient manner. Grading and providing valuable feedback toward student assignments.

**Data Entry and Organization**, John F. Allen & Son Inc., August 2017 – January 2018

## Activities:

**Upsilon Pi Epsilon, Computer Science Honor Society**, WPI, January 2018 – Present

**Alpha Chi Rho Fraternity**, WPI, February 2018 – Present

New Member Leader & Sergeant at Arms

**Game Development Club**, WPI, August 2016 – Present

Vice President

**Diversity in Games**, WPI, August 2017 – Present

**Fencing Club**, WPI, September 2016 – Present

## Honors:

**Dean's List**, WPI, August 2016 – Present