

# Michael Barba

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Junior undergraduate Computer Science/Math student looking to make great games with great people.

## Education

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**BS in Computer Science, University of Massachusetts Amherst**

3.88 GPA

BS in Applied Mathematics, Secondary Major

**Coursework Taken:** Data structures, algorithms, intro to unix, computer systems, linear algebra, calculus, intro to computation (discrete math), scientific computing

## Experience

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### Buh! Gaming

*Software Engineer · Kirkland, WA*

*May 2019 - Aug 2020*

- Developed many systems in Unity (C#) for the upcoming **third-person MOBA** Tournament of Tamers.
- Presented at the **Seattle Indies Expo** after being selected by their judge panel.
- Currently released on Steam early access with over **3,000 players**.
- Built an **analytics** system to easily observe player trends and balance characters.
- Worked on **gameplay** (new characters abilities), **UI**, minion **AI**, Steamworks API integration, **networking**.

### BAE Systems

*Software Engineer Intern · Merrimack, NH*

*May 2020*

- Canceled due to Covid-19

### Dean Bank

*Junior System Administrator · Franklin, MA*

*Aug 2018 - Aug 2019*

- Write scripts to automate bank IT processes
- Integrate new VMs into bank environment

## Projects

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### ANTIGOLF

*2D golfing puzzle game made in Unity*

[mbarba.com/project/antigolf](http://mbarba.com/project/antigolf)

- **1 of 10 winners** from the Bracket's 2020.1 Game Jam with **over 700 entries**.
- Among **top 5** in categories such as "fun" and "innovation".
- Launched on itch.io with over **1,500 players**.

### Understanding Quaternions

*Educational math demo made in Unreal Engine 4*

[mbarba.com/project/quaternion](http://mbarba.com/project/quaternion)

- Demonstrates solid **3D math skills**.
- Intended to teach indie developers about quaternions, a vital math object used for rotations.

### HUEb

*First-person puzzle game inspired by Portal and Antichamber*

[mbarba.com/project/hueb](http://mbarba.com/project/hueb)

- **2nd place winner** of Weekly Game Jam 160 with **over 80 entries**.
- Created **custom shaders (HLSL)** to improve the game visually.

### ARORA

*AR app made in Unity, designed to identify objects on the International Space Station*

[mbarba.com/project/arora](http://mbarba.com/project/arora)

- Originally designed for the NASA HUNCH competition, in which it was **recognized at the national level**.
- Won **2nd place nationally** at the SkillsUSA Career Pathways competition.

## Skills

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- **Programming Languages:** C#, C++, Java, JavaScript
- **Development:** Unity, Unreal Engine 4 (C++ & Blueprints), Git, SVN, Unit Testing, Unix, React, Sass
- **Others:** 3D Math, Steamworks API, Photon Networking API, Microsoft Office, Photoshop, Blender,  $\text{\LaTeX}$