

Huijie Bao

Student at Miami University, Oxford, OH
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Profile

Senior Computer Science major at Miami University with experience as Teaching Assistant for multiple computer science courses; Unity Developer & Research Assistant in two Virtual Reality projects; Gameplay Programmer in a one-year Game Capstone at Miami University.

Education

Miami University, Oxford, Ohio

Jan 2016 – May 2019 (Expected)

Degree: Bachelor of Science, GPA 3.73

Major: Computer Science

Minor: Digital Games Studies

Member of Tau Beta Pi – Engineering Honor Society

I-Shou University, Kaohsiung, Taiwan

Sept 2014 – May 2015

Degree: Transferred to Miami University after one year of study, GPA 3.93

Major: Information Engineering

Relevant Courses: Algorithms, Artificial Intelligence, Database Systems, Data Abstractions & Structures, Foundations of Graphics, Game Engine Design, Artificial Intelligence in Games, Game Design and Implementation, Digital Modeling and Rendering.

Work & Research Experience

Software Developer for Virtual Reality Lab, Miami University

Oct 2018 – Present

Developed scripts for projects in the Virtual Reality Lab. Currently working on using Unity 3D to access the ForceWear Vest to simulate force feedback when the user is hit in the Virtual Reality World; which will be used in a VR game about running in a maze and dodging lasers.

Unity Developer / Research Assistant, Miami University

May 2018 – Present

Developed a Virtual Reality application "Motion Test" in Unity 3D for the Mechanical Engineering Department for an experiment on human balance problems. The project team was interviewed by the Miami University Alumni Association during "Move in Miami 2018" on Facebook Live; and was presented on at the "Assistive Technology Lunch & Learn" Event at Miami University.

- Made the application able to delay the users' visual feedback, scaling the users' rotation and moving behavior in the VR world depending on the parameters set in the Setting Menu.
- Made the application able to store the experiment's data for future analysis; used regular expression to make the files' names able to be auto-updated depending on previous names.
- Added and modified the User Interface functionalities of the application.
- Wrote the instructions on how to use the application and notes for further development.

Teaching Assistant, Miami University

Feb 2017 – Present

Assisted students during lectures and labs, graded assignments, held help sessions.

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|---------------------------------------|------------------------------|--------------------------|
| • CSE465: Comparative Prog. Languages | ASP, Scheme, Python, C#, C++ | Spring 2018, Fall 2018 |
| • CSE385: Database Systems | SQL Server, C# | Summer 2017, Spring 2018 |
| • CSE381: Operating Systems 2 | C++, Linux | Fall 2017 |
| • BUS104: Computational Thinking | SQL, JavaScript | Spring 2017 |

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Projects

Early In the Mourning, Miami University **Aug 2018 – Present**

PC game development in Unity 3D during one-year Senior Game Capstone, in collaboration with 16 other group members working on components including art, design, programming, music and narrative.

- Worked as a Gameplay Programmer focusing on Artificial Intelligence of the enemies in the game.
- Designed and implemented the Finite State Machines of different enemies according to the design documents from the design team.

Accessibility Mapping, Miami University **Jan 2018 – Present**

Navigation App development which can help students with disabilities and new students on campus during one-year Group Senior Computer Science Capstone. This project was awarded the **Senior Design Expo Award - Best Departmental Award**.

- Development in MySQL Database and creation of stored procedures to help the following: developing our own navigation system; cleaning extra nodes and erroneous data from previous groups; reviewing new data to keep the database safe and clean.
- Assisting teammates in developing the navigation system with mathematical expertise.

AppCat, Miami University **Aug 2017 – Dec 2017**

AppStore Website on Localhost, Group project in CSE course: "Introduction to Software Engineering,".

- Wrote script in C# & Regex to download 3817 apps' data automatically from Google Play AppStore.
- Created the entire MySQL Database System with multiple stored procedures.

Skills

C, C++, Python, Java, C#, SQL, MySQL, OpenGL, GLSL.

Computer Graphics, Virtual Reality, Game Development, Data Mining.

Game & Modeling tools: Unity 3D, Game Maker Studio, Blender.

Honors and Awards

Dean's List at Miami University	Spring 2016 – Spring 2018
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Senior Design Expo Award - Best Departmental Award at Miami University	Spring 2018
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1st Prize in Calculus Contest at I-Shou University.	Spring 2015
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