

# Brandon Michael Makin

BrandonMakin.com

## Education

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Chapman University 2016 - Present  
B.S. Software Engineering 2020 with Minor in Game Development Programming  
Schmid College of Science and Technology  
Chapman University Provost List - 3.89 GPA

## Paid Work Experience

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Google Summer of Code 2018 - Godot Game Engine 2018  
- Planned, proposed, and implemented WebRTC into the open source Godot Engine for fast multiplayer networking in web browsers and for peer-to-peer networking via NAT traversal  
- Extended the engine in C++ to allow WebRTC to be accessed via Godot's high- and low-level multiplayer networking APIs for easy use within the engine

VR Sensory Research, Team Lead - Chapman University with Dr. LouAnne Boyd 2018 - Present  
- Creating a virtual reality environment designed to comfort a neurodiverse set of children playing individually or in a group  
- Developed in Unity 3D, with Photon Unity Networking and VRTK.  
- Leading a team of 4 software engineering students, alongside 4 other teams in an agile environment  
- Mentored by Dr. Boyd, whose background is in informatics, UX, developmental psychology  
- Presented the team's research at INSAR (International Society for Autism Research) conference in Montreal May 2019

## Special Skills & Education

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- Java, C#, C++, Python
- JavaScript, HTML5, CSS, Node.js, WebSocket, WebRTC
- Amazon Web Services (AWS) - EC2, S3, Cloudfront
- Cybersecurity CPSC 370
- Operating systems internals, Linux IPC, parallelism and thread-safety (semaphores, mutexes, locks)
- Human Computer Interaction and UX design, Designing for Disability
- Software and Requirements Design, UML Diagramming
  - Taking a project through several prototyping phases: defining software requirements, creating wireframes, and testing with user groups
- Data Structures, Algorithmic Analysis, Discrete Mathematics, Linear Algebra, Differential Equations, Statistics & Probability
- Game Development: Unity Engine, Godot Engine, 3DS Max, Blender 3D
- Traditional Art, 2D and 3D Digital Art
- Music composition, Music technology, Voice, Drums, Logic Pro X, Ableton, Pure Data
- Microsoft Office Suite, Google Drive G Suite
- Git VCS

## Projects & Extracurriculars

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Project Lead [Producer, Programmer] - Capstone Project for Minor in Game Development Programming 2018 - Present  
- Leading a team of 6 students: 4 programmers, 2 artists  
- Multiplayer underwater racing game - developed a system to use phone motion to steer your swordfish  
- Awarded *Best Engineered Game* at Panther Games Showcase; awarded *Special Mention: Technical Merit* at IEEE GameSig

Panther Games (Chapman University Game Development Club)  
- External Relations Coordinator 2018 - Present

- Represent Chapman for SGDA, the Student Game Developers Association
- Coordinate events with other schools and speakers from the video game industry

- Event Coordinator 2019 - Present

- Coordinate all Panther Games biweekly events, including Winter and Spring Showcase

4 Other Game Projects (3 done as a team) - for more information, see [BrandonMakin.com/games](http://BrandonMakin.com/games)

## Additional Events & Awards

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Global Game Jam 2017, 2018, 2019  
Data Fest - Awarded *Best Use of Outside Data*. Invited to American Statistical Association April 2017  
INSAR (International Society for Autism Research) conference in Montreal. Represented VR Sensory (see Paid Work Experience) May 2019