

BRETT HICKMAN

Programmer - Designer - Creator

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PROFILE

Experienced and self-motivated computer scientist with a passion for blending technology and artistic vision, seeking to make an impact in the field of creative computing.

EDUCATION

2018 - 2023

COMPUTER SCIENCE

California Polytechnic State University

STRENGTHS

Extensive knowledge of C / C++

Linear Algebra / 3D Math

Java, Python, C#, Javascript

Unity Development

Computer Animation

Graphics Pipeline / 3D Engines

Debugging / Refactoring

Inverse Kinematics

Unix and Linux Development

Time Management

Collaboration

Project Management

INTERESTS

D1 Track and Cross Country Running

Graphic Design / Art

Music Production

PROJECTS

See my [portfolio](#) (linked above) for further details

VIRTUOSOS

Timeline: 1 year

SKILLS

A fully released rhythm / story game made in Unity

- Programmed rhythm detection and visual systems
- Designed animation systems with rigging and event triggers
- Collaborated with artists, animators, musicians, and writers

Unity
Animation
C#
Teamwork

GUNFIGHT

Timeline: 6 months +

SKILLS

Online multiplayer shooter that is coming to Steam

- Independently acquired networking skills
- Task-focused Project Manager skilled at organizing
- Restructured my code for improved clarity and performance

Networking
Leadership
Refactoring
Publishing

EXP

Timeline: 3 months

SKILLS

3D game engine made with OpenGL and C++

- Engineered a particle system with multiple applications
- Incorporated shadow mechanics and spatial audio features
- Acquired an in-depth grasp of the graphics pipeline

C++
Particles
Instancing
Graphics

GAME JAMS

Timeline: 48 hours/ea

SKILLS

Multiple projects made within tight deadlines

- Prototyped and iterated on gameplay ideas quickly
- Embraced challenges posed by limited resources
- Composed dynamic music and sound effects

Adaptation
Time Mgmt
Rapid Dev
Collaborate

WORK EXPERIENCE

TECHNICAL ADMINISTRATOR

Immersive Learning Research Network - California

6/24/23 - 6/30/23

- Supported XR conference tech issues and execution, ensuring smooth operation.

IT / OPERATIONS

Clearsource - California

6/12/22 - 9/5/22

- Demonstrated multitasking skills, managing IT & operational tasks collaboratively.