

Benjamin Nguyen Quach

San Francisco Bay Area

benquach16@yahoo.com

<https://github.com/benquach16>

WORK EXPERIENCE

Autodesk, Software Engineer

(July 2016 - Present)

- Working on the graphics pipeline for the AutoCAD engine in C++ for all platforms.
- Rearchitected the graphics engine and developed new sync drivers for DirectX11.

Autodesk, Intern Software Development Engineer

(June 2015– August 2015)

- Improved performance and maintainability by restructuring the Java/GWT based AutoCAD 360 engine through changing event systems and flattening class hierarchies.

UC Riverside Brain Game Center, Game Developer

(August 2014 – June 2015)

- Worked on the development of gameplay and level generation in Unity for an audio training game under Dr. Victor Zordan.
- Uses research from the UCR neuroscience department to improve brain and auditory functionality.

digitalRaster, Software Engineering Intern

(June 2014 – September 2014)

- Created parts of an asset management program for digital artists, working on the network and interface aspects of the program.
- Developed network message queues and information passing through freeRDP virtual channels in C++.

TECHNICAL EXPERIENCE AND PROJECTS

BEND3r

(May 2014)

- Project leader and lead programmer for the [1st place hackUCI winner](#). A 3D modeling program that uses the Microsoft Kinect to simulate clay sculpting with hand gestures.
- Developed most of the graphics components and shaders of the program.

BenScript Language

(March 2014)

- Lead programmer for a team in CitrusHack 2014 that developed a new programming language in 42 hours.
- Language featured lexical analyzer, tokenizer, function calls, daisy-chained operations and variable scoping.

Lost Horizons

(December 2012 - Present)

- Created a complex 3d space video game from scratch using only C++, and the Irrlicht rendering library.
- Wrote the over 15 thousand lines of code to develop the game engine and object interactions.

TECHNICAL SKILLS

- Languages: C++, C, C#, Java, Javascript, PHP
- Operating Systems: Windows, Unix
- Applications: Microsoft Visual Studio, Unity, Git, Cygwin
- Libraries and APIs: Qt, FreeRDP, GWT, OpenGL, Irrlicht, OGRE, POSIX, Win32, LAMP stack

ACTIVITIES AND ORGANIZATIONS

Association for Computing Machinery, President

(June 2015 - Present)

I organize and run events, such as our career pathways programs and HackNights to ensure that students at UCR are getting the engineering opportunities they need. Also treasurer of the organization last year.

GameSpawn at UCR, Vice President

(December 2013 – June 2015)

I formed events and mentorship workshops for the UCR game development club. I also lead multiple projects for students to work on games, and teach workshops about game design.

EDUCATION

2012 – Present University of California, Riverside (Expected Graduation Year: 2016)
Major: BS in Computer Science
GPA: 3.3/4.0