

## ○ Profile

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Experienced generalist video game programmer.

## ○ Work Experience

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### **Feb'16-Present**

#### **Austral Works, Los Angeles, CA**

##### **Founder**

- A year-long personal project to work on some experimental ideas and diversify my skillset
  - Implemented a machine-learning based algorithmic stock trading platform.
  - Created a web app for the platform so that others can manually access a subset of the core algorithm.
  - Ongoing work on a hobby 2D mobile game
- Financed by freelance contracts (mostly involving VR).

### **Mar'11-Feb'16**

#### **Blizzard Entertainment, Irvine, CA**

##### **Senior Software Engineer, World of Warcraft**

- Worked on long term goals of the engine, focusing on stability and performance
- Redesigned and implemented the replication system that mirrors data between servers and clients.
- Improved the proprietary data serialization and transmission protocol.
- Worked on a content addressable file storage and streaming system to reduce load/patch times, alleviate issues caused by file corruption and other I/O problems, facilitate encryption.
- Implemented a multithreaded job scheduler.
- Identified memory hotspots and redesigned several systems to be more memory efficient. Tackled memory fragmentation.
- Created tools to help other developers and improved patching & build systems.

### **May'07-Mar'11**

#### **Electronic Arts, Los Angeles, CA**

##### **Software Engineer**

- Medal of Honor: Warfighter (PS3, XBOX 360, PC):
  - Prepared the codebase and pipeline for moving to Frostbite engine from Unreal Engine 3.
- Bulletstorm (PS3, XBOX 360, PC)
  - Provided programming support to People Can Fly/Epic Games before the launch of the title.
- Medal of Honor (PS3, XBOX 360, PC)
  - Developed several rendering features, owned the postprocess pipeline
  - Increased stability and performance on all platforms, focusing on PS3
  - Point person for all crashes, either delegated to others or fixed personally
  - Implemented destructible objects and gibs
  - Responsible for the Direct3D 10 port
  - Owner of profile manager system that handles player profiles and save/load, compliant to TRCs.
- Medal of Honor: Airborne (PS3, XBOX 360, PC)
  - Implemented the dedicated server component

### **May'07-Mar'11**

#### **Art Institute of California, Los Angeles**

##### **Part Time Faculty**

- Taught Computer Graphics and Introduction to Programming classes.

## ○ Education

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#### **Carnegie Mellon University**

MSc, Computer Science, 2007

## ○ Skills

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**Languages:** C/C++, Python, C#, Erlang, Perl, Javascript, Lua

**Engines:** Unreal Engine 4, Unity

**Other:** Web development (node.js & express), virtual reality, iOS development