# Aaron Krajeski

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# Work

2016-Present Software Engineer/Technical Artist, ScribbleChat, New York.

Lead developer for 3D graphics, design and implementation

- Developed effects using THREE.js and webgl
- Worked with AR and iOS
- Developing an API with our effects interface
- o Currently available in iOS app store, Google play store and as an iMessage and Facebook messenger extension with 80,000 daily active users

#### 2015–2016 **Software Engineer**, *Humtap*, San Francisco.

Primary developer in charge of algorithmic music composition

- Used machine learning techniques to create song structure and chord progressions
- Analyzed and visualized user data
- Interfaced with musical composers to codify and implement their ideas
- Optimized the audio rendering process

#### 2014–2015 **Software Engineer**, *PLAYMIND*, Montréal.

Served as the liaison between the art and technical teams for interactive projects

- o Technical Artist for The Innerfriend, a kinect-based XBOX One game
  - Optimized GPU code, wrote shaders
  - Authored general purpose GPU programs in DirectCompute for the simulation of physical systems like complex colliders and jellyfish tentacles.
- o Software developer for the city of Joliette Québec's 150th anniversary installation
- o Software developer for Ma Vie Comme Rivières at La Musée Regional D'Argenteuil. An permanent, interactive kinect-based retelling of the geographical and human history of Argenteuil, Québec.

# 2013–2014 **Software Engineer**, *The Deep Listening Institute*, Montréal.

Developed The Adaptive Use Musical Instrument (AUMI), a musical interface employing computer vision techniques for use in classrooms.

# Skills

GPU GLSL, OpenGL, Direct3D, HLSL, CG, DirectCompute, CUDA, OpenCL

Programming

Languages Javascript, C++, Python, C#

Engines THREE.js, Unreal, Unity3D, OpenFrameworks

#### Education

2011–2013 M.A. Music Technology, McGill University, Montréal.

2005–2009 B.S. Physics, The College of William & Mary, Williamsburg, VA.

### Master's thesis

title A Flexible Tool for the Visualization and Manipulation of Musical Mapping Networks

supervisors Marcelo Wanderley

description Developed a modular javascript browser-based user interface for mapping arbitrary musical control parameters to sound synthesis inputs.

# References

- Ford Hurley: Lead developer at ScribbleChat. ford@scribble.chat
- o Julien Bloit: Technical director at HUMTAP. julien@humtap.com
- Jalil Lalami: Technical director at PLAYMIND. jalil@playmind.com