

Aaron Krajewski

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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
 - 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
- 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.
 - Software developer for the city of Joliette Québec's 150th anniversary installation
 - 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

Languages JavaScript, C++, Python, C#
Frameworks THREE.js, Unreal, Unity3D, OpenFrameworks, React
Backend Docker, AWS, PostgreSQL, Node.js
GPU GLSL, OpenGL, Direct3D, HLSL, CG, DirectCompute, CUDA, OpenCL

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 (949) 423-8231 <ford.hurley@gmail.com>
- Julien Bloit: Technical director at HUMTAP <julien@humtap.com>
- Emmanuel Sévigny: Founder of PLAYMIND (514) 983-7186 <emmanuel@playmind.com>