Michael Wang

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GitHub • **Portfolio** • **LinkedIn**

Experience	**Co-Founder, Software Developer** – Halboom LLC (2009 – 2016)

- Programmed a framework in haXe, AS3, and Python that has run on millions of machines of varying hardware delivering stability and performance.
- Improved rendering performance, enabling a 60 fold increase in on-screen dynamic objects by caching transforms seamlessly.
- Developed a marketing automation program which interfaces with sites and manipulates the DOM, increasing per game revenue by up to 600%.
- Lead the development and design of games, resulting in millions of plays.

Projects

Code Splat - Ruby on Rails, React/Flux   (**live**, **github**)
Code annotation website inspired by Genius.

- Integrated syntax and annotation highlighting to make code easier to read.
- Built error handling for annotations, improving UX and preventing overlaps.
- Implemented text history for models using polymorphic associations.
- Optimized $O(n^2)$ difference checks to $O(n \log n)$ by using intermediate hashes.

JSES - JavaScript ES6, WebGL, Node.js   (**github**)
A framework for developing rich applications using composition, physics, and rendering.

- Designed the architecture to use composition via primitive data allowing for more reusable and less coupled code.
- Programmed a factory using JSON to create objects for codeless prototyping.
- Created the physics system with optimized collision, reducing the time complexity from $O(n^2)$ to $O(n)$ through broad phase grid partitioning.

Blockgineer 2 - haXe, Actionscript 3, Flex   (**live**)
Physics puzzle game, includes a map editor and an online map browser.

- Developed a smart caching rendering system, which allowed displaying thousands of transformed and animated objects at a time.
- Created a level editor and browser which increased longevity and lead to over 7500 levels being created.

Education

Rutgers University - New Brunswick – 2005 - 2009
BS Electrical and Computer Engineering, **GPA 3.43**

App Academy – Feb - May 2016
Rigorous web development course that teaches Rails, SQL, JS, React, TDD, best practices, and pair programming, less than 3% acceptance rate.

Skills

Ruby, Ruby on Rails, JavaScript, Node.js, React.js, Flux, jQuery, SQL, CSS, HTML, Git, TDD, Agile Methodology, Python, Java