New York, NY 10012 E-MAIL mwwbox@gmail.com

## **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%.

## **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(n²) 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(n²) 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