# Hamilton **B Sands**

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## EXPERIENCE

**Fullstack Software Engineer** • *Publicis Media/RUN*                    Jul 2018 – Present
*Develop a portal for a demand-side platform (DSP) delivering multi-million dollar ad campaigns*

❖ Build a React/Redux app for in-house ad-operations teams and later self-service clients
❖ Develop and maintain a Rails/Mongoid API integrating with SideKiq, Redis, ElasticSearch, AWS S3, and bidder/banker APIs
❖ Optimized landing page performance by over 400% by aggregating inconsistent hourly ETL transfers with scheduled cron jobs monitored using DataDog
❖ Implemented a role-based user permissions system providing tiered access to resources and user management for team leads
❖ Created a sophisticated geolocation targeting tool with MapboxGL rendering thousands of geo-shapes and handling user-specified point-radii
❖ Write comprehensive test suites using RSpec and Jest for unit tests and Capybara with Selenium for feature tests
❖ Collaborate with product to develop bulk-workflow tools for campaign managers saving 40+ hours of data entry per week
❖ Use D3 and Material-UI to craft custom data visualizations and build stylish components

**Draftsman** • *David Sands Designs*                    Jun 2016 – Oct 2017
*Drew layouts/elevations using AutoCAD. Translated 2D layouts into 3D models using SketchUp*

**Lab Technician** • *Lab in Learning and Representation in Cognition*                    Jun 2014 – Jun 2016
*Coded implementations of a multichannel auto-encoding neural network (DIVA). Optimized neural network parameters to best replicate human classification behavior from previous experiments*

## PROJECTS

**AmoeBoi |** *JavaScript • Webpack*                    **Repo | Live**
*A become-the-largest type game akin to agar.io*

❖ Designed a custom physics engine to handle absorption rates, acceleration, collisions, etc.
❖ Utilized a quadtree to store all objects on the field, optimizing the collision detection algorithm

**WaveForm |** *React • Redux • Rails • AWS*                    **Repo | Live**
*A single page website inspired by SoundCloud*

❖ Leveraged AWS S3 for quick retrieval of large mp3 files and future scalability
❖ Maintained stable playback during network interruptions by preloading audio content

## SKILLS

JavaScript ES6+ • React • Redux •Ruby • Ruby on Rails • Webpack • MongoDB • PostgreSQL • D3 • HTML5 • CSS3 • RSPEC • JEST • Selenium

## EDUCATION

**App Academy**                    Nov 2017 – Feb 2018
1000+ hour full stack web-development program with < 3% acceptance rate. Emphasizes best practices and pair-programming exercises.

**SUNY Binghamton**                    Sep 2012 – May 2016
B.A. Psychology, GPA: 3.54 Cum Laude

**Stuyvesant High School**                    Sep 2008 – May 2012