

TYLER BISSON

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SKILLS

React.js, Redux, JavaScript, Ruby, Ruby on Rails, jQuery, SQL, Git, HTML5, CSS3, Web Audio API, UX Design

PROJECTS

Stereophonic Cumulonimbus (React, Redux, Rails, PostgreSQL, Webpack, AWS, Heroku, CSS3, HTML5) [Live Site](#) | [Github](#)

A full-stack, single-page, SoundCloud clone

- Achieved seamless audio playback throughout inter-component navigation by maintaining reference to active music in UI slice of Redux global store
- Reduced AJAX requests by returning nested JSON from Rails views while maintaining normalized Redux state shape through intelligent reducer design
- Configured Rails Active Storage with AWS S3 to allow seeding and full CRUD for user's songs and images

Groove Pizzeria (JavaScript, Web Audio API, HTML5, CSS3)

[Live Site](#) | [Github](#)

A novel music education tool allowing users to make sub-millisecond accurate drum rhythms

- Implemented sample-accurate audio-event scheduling through "look ahead" collaboration between JavaScript timers and the audio subsystem hardware clock, exposed by the Web Audio API
- Resistant to main execution thread disruptions such as window resizing or garbage collection but also flexible enough to handle rapid tempo adjustments or pausing
- Designed currying functions to DRY up HTML5 canvas rendering loop
- Evaluated according to Don Norman's *Emotional Design* theory through user-testing as part of design thinking process

EXPERIENCE

Software Developer, Researcher

NYU Music Experience Design Lab

(2017 - Present)

- Developed and conducted user experience research culminating in Groove Pizzeria web application
- Co-founded music education software startup team with members of NYU Music Experience Design Lab to develop music education web apps for arts and cultural institutions
- Secured \$35,000 in funding from NYC Economic Development foundation and NYU
- NYC Media Lab accelerator, Real Startup, a SF based music technology accelerator, and NYU Faculty Startup Sprint
- Conducted in excess of 200 customer discovery interviews to gather information for product design and strategy
- Drafted wireframes and user stories in design sprints

Tutor/ TA

NYU Steinhardt School of Culture, Education, and Human Development

(2017 - 2018)

- Tutored dozens of music technology graduate students writing technical research papers on topics such as web-audio, audio codecs, digital signal processing, and 3D audio
- Improved grades of graduate students by training both articulation of technical topics and general writing skill
- Graded hundreds of tests and papers on the foundational topics of digital sound

EDUCATION

App Academy - 1000+ hour full-stack web developer program with a ~3% acceptance rate

(2019)

New York University - *Master's Degree in Music Technology (Software Development Focus)*

(2016 - 2018)

- Multiple courses in Web Development, Computer Science, iOS Development, Digital Signal Processing, and Technology Entrepreneurship utilizing: JavaScript, HTML, CSS, web APIs, Java, Swift, Matlab, C, Max MSP, Csound & more
- Best Software Design Award in Music Technology Program for browser-based collaborative musical instrument
- Music Technology Department Award for excellence in research and success as tutor/TA