# Nathan Bloomfield

# Web Developer / Multimedia Artist

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Product-focused, health minded full-stack developer with a background in the creative arts and a keen interest in AI, machine-learning, and data. Thoughtful, efficient communicator who works well with diverse teams—both remotely and in-person. Enjoys building out personal projects, picking up new technologies and exploring the JavaScript ecosystem.

#### **TECHNICAL EXPERTISE**

JavaScript (ES6): Node.js, Express, jQuery, React.js. • Databases (MySQL, MongoDB) • WebSockets (Socket.IO) • HTML5 and CSS3 • Python (Django) • Server-side development (MERN Stack) • CSS/UI Libraries (Bootstrap, Materialize) • REST • JSON • Canvas • WebAudio API: Tone.js • Electron

#### **DEVELOPMENT EXPERIENCE**

**StockGEN** - StockGEN follows extremely shrewd investment funds. At the push of a button, StockGEN assesses the user's desired risk profile. One can find top-holdings of top-performing hedge funds, their conviction bets, and their newest positions. (Demo: <a href="https://youtu.be/5PtsaH-ALoA">https://youtu.be/5PtsaH-ALoA</a>)

- Responsible for transforming the app architecture from a conceptual diagram to a finished product.
- Leveraged the power of Node.js and ES6 to consolidate financial information from multiple feeds
- Configured and stored data in Firebase, minimizing expensive AJAX calls.
- Fed information through Materialize framework on the client side, displaying organized financial advice based on user risk profile.

**Vedic** - Vedic allows producers to mine for generative musical sequences and convert them to MIDI for use in any digital audio workstation. (Demo: <u>vedic-bloom.herokuapp.com</u>)

- Responsible for project from conception to launch
- Leveraged music theory NPM libraries, Vedic math and modular arithmetic concepts to algorithmically generate elegant musical sequences
- Created an accessible and intuitive UI with reusable components
- Currently preparing for social media campaign, pilot-testing with target audience, and integration of a user-based license-key system
- Protected proprietary algorithm on the server using Socket.io
- Tech stack: Node.js, Electron, jQuery, WebAudio API, Tone.js, Socket.io

**Spark** - A mock friend-finder site built with Node.js, Express, and jQuery (Demo: https://spark-friendfinder.herokuapp.com/)

- Built a REST API to store compatibility data from user submissions
- Configured backend with Express
- Used vivid imagery and an intuitive UI to build a user experience that communicates the product's overall message

**PitchCanvas** - An environment for visualization of harmonic structures on a 2-dimensional plane. (Demo: <a href="https://wildcat510.github.io/PitchCanvas/index.html">https://wildcat510.github.io/PitchCanvas/index.html</a>)

- Leveraged JavaScript OOP concepts and HTML5 Canvas to render a 12-dotted circle to the screen with each point stored in memory as a distinct object.
- Create an interface to draw lines from point A to point B, and so on, in addition to more nuanced drawing features.
- Technologies used: VanillaJS, HTML Canvas

## **ADDITIONAL EXPERIENCE**

Philz Coffee, Berkeley, CA - Barista

JUNE 2017 - PRESENT

• Serving up legendary pour over with a team dedicated to superior customer service.

Riverdog Farm, Berkeley, CA - Market Assistant

MONTH 20XX - MONTH 20XX

 Riverdog grows their produce in the Capay Valley, a world-renowned climate conducive to growing nutrient dense, delicious foods. I was a part of the Saturday market team in Berkeley for a number of years.

## **EDUCATION**

**University of California, Berkeley** - Professional Certificate in Full Stack Web Development October 2017 - April 2018

#### California Jazz Conservatory

2013-2016

Intensive holistic training in jazz with a focus on the guitar. During my time there I wrote several original theoretical essays.

#### **AWARDS**

**Most Disruptive App** - Awarded for StockGEN at UC Berkeley