Matthew Wojick

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SKILLS

JavaScript • Ruby • React/Redux • Ruby on Rails • RSpec • SQL • HTML/CSS • Ajax • Webpack • GraphQL • Apollo Client • MongoDB • Node.js • Git • Linux • Perl • Matlab • VLSI • Verilog

PROJECTS

Moosiko (React, Redux, Ruby on Rails, Devise, AWS S3, Stripe) **Live**

A single-page progressive web app that helps you learn your favorite songs on the guitar

- Architected and developed a guitar learning app using provided assets for the lessons. Currently at >300 users.
- Implemented a mobile first design approach to cater to our mobile users, who make up more than 90% of the user base.
- Utilized Stripe (with Stripe Elements) to create a payment flow for users to purchase individual lessons.

TreatPal (React/Redux, Ruby on Rails, Google Maps API) **Live** | **Github**

A full-stack application based on the site MealPal

- Implemented a search bar that searches by location or item by sending Ajax calls to the server on user input.
- Integrated Google Maps API to dynamically search for shops based on the map bounds.
- Implemented reservations using the CRUD cycle in order for users to make reservations for the next day, and modify/cancel them.
- Incorporated the CSS Grid system in the index page to create a smooth and responsive user experience regardless of the display size.

2D-Portal (JavaScript, HTML5 Canvas) **Live** | **Github**

A 2D version of Portal, a popular puzzle-platformer game

- Developed player physics in which the player responds to collisions, gravity, friction, and user input.
- Created a custom teleport function to move the player between portals and preserve velocity.
- Developed a custom, scalable bitmap editor to easily add on additional levels using sprites.

Configurable JPEG Image Compressor - VLSI Design II @ UMich **Paper**

- Designed a JPEG image compressor using configurable approximate computing with multiple voltage rails.
- Developed standard cell layout and characterization, block level auto place and route, and final integration to achieve less than 5% total area overhead from the original design.

EDUCATION

App Academy (San Francisco) - Full stack web development bootcamp with a 3% acceptance rate *2018-2018*

University of Michigan, Ann Arbor - *MS Electrical Engineering (VLSI / Computer Architecture), GPA: 3.55* *2015-2017*

University of Massachusetts, Amherst - *BS Electrical Engineering, GPA: 3.73* *2011-2015*

EXPERIENCE

Software Engineer (Customer Success Group)

PowWow Mobile Oct 2018 - Present

- Built custom components and API connections for our clients using Angular and Node.js.
- Assisted in training a new client on how to use our software to build apps.

Co-op Engineer (Physical Design)

Advanced Micro Devices (AMD) May 2016 - Aug 2016

- Created Perl test scripts for standard cell libraries in an advanced technology node.
- Ran synthesis and trial routes of standard cells on an RTL block using Synopsys and Cadence CAD tools.
- Resolved bugs in the library packaging tool (proprietary software) by collaborating with the international CAD team.

Undergraduate Researcher

Nanodevices and Integrated Systems Laboratory (UMass) Dec 2013 - Sept 2014

- Investigated the process of forming an all-silicon memristive device using a one-step thermal oxidation process.