Xiaowen Ling

Portfolio: https://xiaowen-ling-portfolio.herokuapp.com/
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SKILLS

JavaScript ◆ React ◆ Redux ◆ Ruby ◆ Ruby on Rails ◆ PHP ◆ SQL ◆ MySQL ◆ PostgresQL ◆ MongoDB ◆ Git
Node ◆ Express ◆ Webpack ◆ Vue.js ◆ HTML5 ◆ CSS3 ◆ D3.js ◆ GraphQL ◆ WebSockets ◆ Socket.io ◆ AWS

EXPERIENCE

Medline.io - (Freelancer) Software Engineer *Feb 2020 - Present*
- Instrumented GraphQL queries to display latest supplies and needs on Homepage in React
- Documented setup instructions for PostgresQL database, GraphQL playground, and server
- Implemented designs from UX with functionality supported by backend team

Vode Media - Director of Art and Photography *September 2016 - Oct 2018*
- Designed website layout to maximize exposure of previous high-quality media from previous projects
- Edited client video by adding color-correction, custom animations and generating custom graphics

PROJECTS

KidsCart (ReactJS, Express)   https://kidscartlive.herokuapp.com | github.com/ladydragonforever/KidsCart
An Express backend and React + Redux frontend built this food ordering app for your kids
- Designed non-relational database schemas for MongoDB to improve reads based on metadata about meal ingredients
- Instrumented meal selector using images layered on top of custom SVG graphic to visually display ingredients
- Implemented responsive search results page by utilizing CSS transitions and media queries to enhance user experience

Fun Chat (Socket.io, ReactJS)   https://fun-chats.herokuapp.com | github.com/shmily40686/FunChat
Chat application focusing on cross-language communication that translates messages you send automatically
- Utilized socket.io library to emit events from an express backend and listened on the frontend using the .on method
- Used Validator to ensure normalization of models with metadata to specify language preferences
- Incorporated translation API to automatically translate messages received to current native language

Games (JavaScript, HTML5)
Frog Jumper https://shmily40686.github.io/frog-jumper | github.com/shmily40686/frog-jumper
Runner game where a frog jumps over obstacles and collects tokens to increase score.
- Created infinitely scrolling game by repeatedly calling HTML5 Canvas draw method using requestAnimationFrame
- Designed algorithm using coordinates and the distance formula to detect collisions between player and obstacles
- Implemented 3D illusion layering multiple canvas elements for background, objects, and foreground
- Utilized webpack and OOP to design classes and separate components into logical concerns

Music Box https://shmily40686.github.io/musicBox | https://github.com/shmily40686/musicBox
Collection of interactive audio-based games including step sequencer, piano, and a spin on the classic game Simon.
- Optimized performance of step sequencer by storing audio nodes in custom data structure
- Instrumented handling of key presses to imitate realistic piano
- Created slider interface to control the tempo of the step sequencer

YOUdemy (Rails, ReactJS)   https://udemy-clone-project.herokuapp.com | github.com/shmily40686/udemy-clone
Rails and React complement each other in this app that replicates key features of Udemy
- Utilized object IDs as keys in global redux store to provide constant time lookup of items within application state
- Incorporated BCrypt with RoR backend to salt and hash passwords to prevent rainbow table attacks
- Implemented original custom CSS animations for sliding window carousel to enhance UX across application
- Optimized API queries to improve speed of search functionality by filtering content metadata by category and title

Tech-D3 (JavaScript, D3.js)   https://github.com/shmily40686/d3-tech-companies | shmily40686.github.io/d3-tech-companies
D3 powers these data visualizations to captivate the eye while describing a story of information
- Reused canvases between multiple visualizations to improve interactive aspect of gallery
- Created with vanilla JavaScript and HTML5 without needing to leverage frontend frameworks to control views

EDUCATION

Software Engineer - *App Academy | Spring 2020*
Film Production & Editing - *Academy of Art University | 2013 - 2016*
Film Production & Directing - *Beijing FIlm Academy | 2009 - 2013*