# Xiaowen Ling

Portfolio: <a href="https://xiaowen-ling-portfolio.herokuapp.com/">https://xiaowen-ling-portfolio.herokuapp.com/</a>

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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

### PROJECTS

**KidsCart** (ReactJS, Express) <a href="https://kidscartlive.herokuapp.com">https://kidscartlive.herokuapp.com</a> | 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) <a href="https://fun-chats.herokuapp.com">https://fun-chats.herokuapp.com</a> | 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

**Frog Jumper** (JavaScript, HTML5) <a href="https://shmily40686.github.io/frog-jumper">https://shmily40686.github.io/frog-jumper</a> | github.com/shmily40686/frog-jumper</a> | 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

**YOUdemy** (Rails, ReactJS) <a href="https://udemy-clone-project.herokuapp.com">https://udemy-clone-project.herokuapp.com</a> | 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) <a href="https://github.com/shmily40686/d3-tech-companies">https://github.com/shmily40686/d3-tech-companies</a> | <a href="https://github.io/d3-tech-companies">shmily40686.github.io/d3-tech-companies</a> 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

## EXPERIENCE

Vode Media - 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

#### FDUCATION

Web Development - App Academy | Spring 2020 Film Production & Editing - Academy of Art University | 2013 - 2016 Film Production & Directing - Beijing Film Academy | 2009 - 2013