

# WON-BAE SEO

98 CLAY ST BROOKLYN, NY. PHONE : 248-606-7532

EMAIL : WNBS36@GMAIL.COM [GitHub](#) [Linkedin](#)

## EDUCATION

**APP ACADEMY, NEW YORK, NY**

May 2018-Aug 2018

- Rigorous 1000-hour software development course with <3% acceptance rate.
- Full-stack web development: Rails, SQL, JS, React, TDD, algorithms, design patterns, and best practices.
- Topics include: TDD, scalability, algorithms, OOP, coding style, REST, security, single-page apps, and web development.

**MICHIGAN STATE UNIVERSITY, EAST LANSING, MI**

Aug 2013-May 2017

**Bachelor of Science, Electrical Engineering**

- Concentration in Biomedical Engineering
- GPA: 3.80, Graduated With Honor
- Courses included : MATLAB Programming, Analog and Discrete Signal Processing, Control Systems, Electromagnetic Waves, Statistics, SPICE Programming and AC/DC Circuit Analysis.

## PROJECTS

### JOYREADS

[LIVE](#) | [REPO](#) Summer 2018

SINGLE PAGE APP INSPIRED BY GOODREADS - FEATURING A RUBY ON RAILS/SQL BACKEND FOLLOWING MVC AND RESTFUL CONVENTIONS AND A JS FRONTEND UTILIZING REACT/REDUX.

- Maintained real-time state through the use of properly maintained Redux conventions. Resulted in the app being able to operate without the constant refreshes that Goodreads requires.
- Minimized loading times and time complexity of state changes, generated custom SQL queries with ActiveRecord to eager-load data on backend and eliminate any N+1 queries.
- Kept track of visited users and books to pre-fill React Component state, for best possible UX and minimal ajax calls and component renders.

### BLOKIFY

[LIVE](#) | [REPO](#) Summer 2018

A JS/HTML/CSS/CANVAS BUILT BROWSER GAME, BASED ON THE POPULAR N-PUZZLE WITH A TWIST.

- Implemented a shuffle method that filtered unsolvable board states, made possible through checking the board's inversion sum that works for for 3x3, 4x4 layouts and beyond.
- Utilized JS's getUserMedia function to snap a photo through the webcam and use it as the puzzle image.

### CHESS

[REPO](#) Summer 2018

A FULLY FEATURED RENDITION OF CHESS PLAYABLE THROUGH THE TERMINAL CODED IN RUBY.

- Features a simple AI player, and obscure moves such as En Passant.
- Used cursor selection to move pieces and allow for intuitive user input.

### MATLAB VOICE RECOGNITION

Spring 2017

A MATLAB PROGRAM THAT CORRECTLY IDENTIFIES A SPEAKER FROM A DATABASE OF WORDS.

- Utilized high level mathematical concepts like Discrete Fourier Transforms and Nyquist Sampling criterion.
- Learned to consider MFCC coefficients and their relationship to the human ear in designing the program, attempting to reach human-level recognition.

## SKILLS

- Ruby, Rails, Rspec, JavaScript, jQuery, React, Redux, SQL, Git, HTML5, CSS3, MATLAB, PSPICE.
- Developing/Manufacturing PCB board layouts.
- Operating an Oscilloscope, soldering electrical components, and breadboard circuit testing.
- Korean - speaking, reading and writing.