Shaun (Shen Teck) Ho

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EDUCATION:

Northeastern University, Seattle, WA — August 2019 – Present
Khoury College of Computer Sciences
Candidate for a Master of Science in Computer Science — GPA: 3.90

Northeastern University, Boston, MA — January 2015 - May 2018
Bachelor of Science degree in Environmental Science
Concentration in Geoscience
Honors: Dean's List (Spring 2016), *magna cum laude* — GPA: 3.76

TECHNICAL KNOWLEDGE:

Languages: Python, Java, JavaScript, HTML, CSS
Frameworks, Libraries, Databases, and Platforms: Express, Node.js, React, SQL, MongoDB
Operating Systems: Macintosh OS, Windows XP/8/10, Linux

PROJECTS:

Pet Adoption App (Pet Haven) — December 2020

- Built and deployed a full stack pet adoption app using React, Redux, Node.js, Express, and MongoDB
- Created and tested (using Express and Postman) API routes to allow for communication between the client, server, and database
- Utilized external libraries and validators such as Yup and Formik to abstract the complexities of form handling in the React app
- Wrote authentication middleware in the backend API which compares the JWToken stored in a web browser's cookie and the token stored within the database to authenticate users when they log in and out
- Allowed users to update password by writing a 'pre' method in Mongoose which contains logic to encrypt the password
- Added a pagination component from the Material-UI framework, which limits the number of pet thumbnails displayed in search
- Attempted to convert the app into a progressive web app by enabling content caching and offline accessibility through the creation of offline.html and serviceworker.js files

Conway's Game of Life Simulation — November 2020

- Used React to create a web app that is a simulation of a system where cells "live" and "die" in a state of relative equilibrium
- Utilized React Hooks to build the web app with emphasis on state management as well as compact, reusable components
- Improved user experience by allowing board size selection, speed toggling of each iteration, and the option of displaying a heatmap

Full Stack Food Delivery App (Hungry Hippos) — September 2020

- Utilized full stack technologies (Java, Mithril.js, Spark, MongoDB) to build a food delivery web application with MVC architecture.
- Used Spark Java web framework to efficiently develop the web application and create API routes which were tested with Postman
- Developed front end components and display with Mithril.js, and used a combination of JavaScript events and Mithril routing to make API calls to the server and change the view
- Utilized front-end frameworks such as Bootstrap to make display more structured and mobile friendly

Reversi Board Game — October 2019

- Used Processing, a flexible software sketchbook to design and implement a board game called 'Reversi' with Python
- Executed a DFS algorithm to find all possible moves on the board and designed a simple AI opponent based on the algorithm
- Implemented classes that launched the initial set up of the board, determined whose turn it would be, and flipped disk color
- Improved user experience by displaying which tiles were flipped, announcing the winner, and creating a leaderboard

WORK EXPERIENCE:

Bluefield Research, Boston — May 2018 – March 2019
Data Analyst

- Collaborated with the VP of Bluefield Research to work on a consulting project detailing international and adjacent market growth on pneumatic pipe plug solutions for Bluefield Research's client:
  - Estimated market size by country based on top-down industry indicators (population growth, infrastructure plans) combined with bottom-up inputs (utility capital expenditure) using 2016 – 2017 as a baseline for forecasts for 2018 – 2023
  - Evaluated leading market players, distributors, and competitors in 24 countries through primary and secondary research inputs
- Worked on a project to create Bluefield Research's third consecutive data insight on U.S. municipal water and wastewater utility bill index, creating forecasts based on Bluefield Research's models and drawing data from more than 59 water and sewer utilities
- Led a project for a client requesting overview of the water needs of the U.S. automotive industry, which was consolidated into a 25-page research deliverable and presented to the client via tele-conference:
  - Formed company profiles on major players in the automotive industry, studied investments and expenditure within the automotive industry, and identified trends of water use within the automotive industry based on existing and historical data
  - Examined case studies of innovative water management strategies at more than 10 auto assembly facilities and parts manufacturers to pinpoint areas of water management risk to the industry