BRENDAN HIGGINS

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PROJECTS

Venn (React.js | Redux | Rails)
- Single-page, full-stack web application inspired by Facebook, built with React.js and flux framework (Redux) on the frontend, Ruby on Rails and PostgreSQL on the backend
- Maintains scalability with integration of AWS S3 for photo storage
- Infinite scrolling reduces loading time by fetching posts in background as user scrolls
- Fetches live news from News API and hover effect to preview article image and headline
- Post/comment forms show preview of image upload and option to remove before posting

Maze Runner (JavaScript | HTML5)
- Maze generation and path finding visualization tool built with JavaScript
- Incorporates HTML5 Canvas for fluid animation and jQuery to seamlessly compare search algorithms on hover
- Implements Breadth & Depth-First Search, Dijkstra's Algorithm, Prim's Algorithm & A*

DOM Querylone (JavaScript)
- Lightweight library built with plain JavaScript inspired by jQuery
- Features simple API for DOM manipulation, event handling and AJAX requests
- Built classic Snake game to demonstrate core functionality & simplicity of DOM Querylone

EXPERIENCE

GE Aviation - Machine Learning & Controls Engineer   *Jan. 2017 – Oct. 2017*
- Developed engine health monitoring software to predict and isolate engine failures with Python's Pandas and Scikit-Learn libraries
- Rigorously tested software in all areas of flight envelope with 90% success rate
- Designed, debugged and tested helicopter engine control logic prior to software release

GE Aviation - Mechanical Hardware Design Engineer   *Jul. 2014 – Aug. 2016*
- Redesigned starter gear and gearbox housing to save $275/engine and $2500/engine
- Spearheaded development of internal ultrapolish process projected to save $1000 per part and 5 days of cycle time
- Redesigned more durable compressor variable geometry linkage to save $800/engine

EDUCATION

App Academy NYC – Jan 2018
  1000-hour full-stack programming bootcamp

Boston University – May 2017
  M.S. Mech. Eng. | GPA: 3.65

Cornell University – May 2014
  B.S. Mech. Eng. | GPA: 3.62 | Cum Laude

SKILLS

- React
- Redux
- JavaScript
- jQuery
- Ruby
- Rails
- Python
- MATLAB
- HTML
- CSS
- Git
- SQL