

Ryan Brown

broryan@umich.edu

<https://www.linkedin.com/in/RyanBrownUmich/>

Personal Site: ryanbrown.ga

EDUCATION

University of Michigan - College of Engineering

Ann Arbor, Michigan

Sophomore Graduating April 2022

- Computer Science Major: EECS 281 - (Data Structures and Algorithms), EECS 280 (Programming & Data Structures), EECS 203 (Discrete Math), MATH 214 (App Linear Alg).
- Course projects include 3D DFS and BFS maze algorithm, content aware image rescale program, Euchre with polymorphic AI players, priority queue stock market simulator.
- Entrepreneurship Minor: PSYCH 223 (Entrepreneurship Creativity)

PROFESSIONAL EXPERIENCE

University of Michigan - Walter E. Lay Auto Lab Internship

Ann Arbor, Michigan

May 2019 - Present

- Developed structural CAD designs of 3-D engine piece prototype to be attached to engine block to ensure fitting for pressure and temperature sensors.
- Installed piping, fixtures, wiring, and electrical components in generator engine control cart.
- Constructed assemblies for engine test cell such as water and exhaust pipelines.
- Reworked, repaired, and replaced parts and assemblies in an ongoing refurbishment project of a diesel particulate matter diluter.
- Integrated data acquisition systems and sensors to collect live-test data for benchmarking.

PROJECTS

Abstract Geometry Generator

<https://github.com/rb404/Abstract-Geometric-Design>

- Utilized HTML 5 Canvas framework Kovna to generate series of specified shapes with varying color, opacity, and coordinates to be used in backgrounds, presentations, etc.
- Implemented a spacing algorithm in JavaScript to determine deviating positions of shapes on the canvas.
- Generated a line direction algorithm that controls the coordinate formation of generated line segments.

Personal Website Development

ryanbrown.ga

- Self taught front-end development basics to showcase various projects and education on a personal site.
- Personal site contains coursework, project showcases, professional experience blog, gallery, etc...
- Ongoing project. Website is updated whenever a new project, course, or professional experience is completed.

MetaTrader 4 Expert Advisor Trading Scripts

- Designed FOREX trading scripts to execute simple long and short positions based off of the observed indicator.
- Scripts analyzed historical data to open and close positions from MA crossover, MACD, RSI, PSAR, etc..

ADDITIONAL SKILLS

C++, JavaScript, HTML, CSS, Matlab, MetaTrader 4, Autodesk Inventor, Solidworks, Milling, Lathe, Adobe Creative Suite, Blender.

HOBBIES

I have enjoyed the visual arts such as graphic design, videography, and 3D Animation since middle school. I have designed logos, composed VFX, and rendered animations.