

Seth A. Fancher

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EDUCATION

University of Michigan, College of Engineering – Ann Arbor, MI (GPA: 3.95) *Expected May 2023*

- B.S.E in Computer Science and Engineering
- Relevant Coursework:
 - EECS 280 – Programming and Introductory Data Structures
 - EECS 281 – Data Structures and Algorithms (Currently enrolled)

EMPLOYMENT

Introduction to Computers and Programming (ENGR 101) – *Instructional Aide* *Fall 2020 - Present*

- Held weekly office hours to aid students with projects and course material in both C++ and MATLAB
- Proctored and graded student exams in order to assist course directors during exam weeks

Multidisciplinary Design Program – *Software Development Fellow* – Ann Arbor, MI *Summer 2020*

- Implemented computer vision algorithms for use on video research datasets at UMTRI (University of Michigan Transportation Research Institute) on team DEVIATE (Data Elements from Video using Impartial Algorithm Tools for Extraction)
- Constructed a tree-like structure to store and manipulate video objects with their children and attributes in Python
- Helped to create a poster and abstract to showcase the team's software design at the MDP Design Exposition

Sensational Spas – *Seasonal Worker* – Stevensville, MI *Summer 2017*

- Monitored the pH and cleanliness of customers' spas to ensure their satisfaction throughout busy summer months

EXPERIENCE

Whirlpool Innovation Challenge *Fall 2018 - Spring 2019*

- Collaborated with a team to engineer and market a new Stand Mixer accessory for KitchenAid
- Presented a business plan and prototype of the product to a team of Whirlpool executives, placing in top ten

Bridgman Foundation of Educational Excellence Fundraiser *Summer 2017*

- Designed and helped auction a decorative shovel to raise funds for Bridgman STEM Lab

PROJECTS – github.com/sethafancher

Go Fish (C++) *July 2020*

- Designed and implemented a Go Fish card game simulator including optional human or intelligent AI players to enhance comfortability with data structures and polymorphism

Personal Portfolio Website (HTML/CSS) – sethafancher.github.io *June 2020*

- Created and published a personal portfolio website that includes a resume, projects, and contact information

Piazza Post Classifier (C++) *April 2020*

- Constructed a classifier for posts on the Piazza forum using basic machine learning techniques in order to increase comfortability with data structures

Laptop Case with Extendable Tray *January - April 2020*

- Designed and engineered an alpha prototype of a laptop case with an extendable tray to offer college students more work room on small lecture hall desks
- Used MS Project and SOLIDWORKS to manage team resources and create an alpha prototype, respectively

Euchre (C++) *February 2020*

- Designed and implemented a classic Euchre card game simulator including optional human or simple AI players to solidify skills in data structures, object oriented programming, and polymorphism

Content Aware Image Resizer (C++) *January 2020*

- Implemented a program using the seam carving algorithm and basic computer vision principles to intelligently resize images

SKILLS AND TECHNOLOGIES

Proficient: C++ | MATLAB | Git | SOLIDWORKS | Visual Studio | Spanish (four years of experience)

Some Experience: Python | HTML | CSS | Android Studio | MS Project