Seth A. Fancher

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EDUCATION

University of Michigan, College of Engineering – Ann Arbor, MI (GPA: 3.95) *May 2023 (Expected)*
- B.S.E in Computer Science and Engineering
- Relevant Coursework:
    - EECS 280 – Programming and Introductory Data Structures
    - EECS 203 – Discrete Mathematics

Bridgman High School – Bridgman, MI (GPA: 4.313) *Fall 2015 - Spring 2019*
- Relevant Awards:
    - Top AP Math Student 2019

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

UM Transportation Research Institute – *Software Development Fellow* *Summer 2020*
- Developed and implemented computer vision algorithms for use on research datasets as a participant in the UM "Experiential Learning Fellowship"

Sensational Spas – *Seasonal Worker* – Stevensville, MI *Summer 2017*
- Monitored pH and cleanliness of customers' spas to ensure their satisfaction

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
    - Placed in top ten out of 31 teams

Bridgman Foundation of Educational Excellence Fundraiser *Summer 2017*
- Designed and helped auction decorative shovel to raise funds for Bridgman STEM Lab

PROJECTS

Personal Portfolio Website (HTML/CSS) – *sethafancher.github.io* *June 2020*
- Created and published a personal portfolio website that includes an introduction, a resume, projects, and contact information

Piazza Post Classifier (C++) *April 2020*
- Designed and implemented 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
- Replicated the engineering design process, including the ideation, design, and evaluation phases
- Used MS Project and SOLIDWORKS to manage team resources and create an alpha prototype, respectively

Euchre (C++) *February 2020*
- Designed and implemented 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 crop images

LANGUAGES, SKILLS, AND TECHNOLOGIES

Proficient: C++ | MATLAB | Git | SolidWorks | Visual Studio | Spanish (four years of experience)
Some Experience: Python | HTML| CSS | Android Studio | MS Project