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*
- 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 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

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