

McKinley Blandford

xxx East x Ave
x, XX, 88888

kinblandford.com
x@gmail.com - xxx xxx xxxx

View my personal projects: kinblandford.com/home/portfolio

Education

University of Utah - College of Engineering <i>Mechanical Engineering Undergrad</i>	AUGUST 2021 – Present 4.0 GPA
Highland High <i>AP Student</i>	August 2017 - June 2021 4.0 GPA, 33 ACT

Research Experience

Assistant Undergrad Researcher <i>University of Utah Department of Mathematics</i>	JANUARY 2022- JUNE 2022
<ul style="list-style-type: none">• Worked under professor Kenneth M. Golden on the mathematical modeling of arctic sea ice• Began development of OpenPore, a microporous medium generation and analysis tool• Briefly worked on fractal dimension analysis of arctic sea ice	

Other Experience

Welding Shop Assistant <i>Highland High Metal Shop</i>	SEPTEMBER 2019- JUNE 2020 SLC, UT
<ul style="list-style-type: none">• Completed large fabrication commissions and fixed miscellaneous tools.• One year of experience as a shop assistant and over three years of experience in the shop otherwise• Capable of MIG, TIG, Flux Core, and Stick welding	
Supervisor <i>Sweetaly Gelato</i>	JUNE 2021- DECEMBER 2021, MAY 2022 - AUGUST 2022 SLC, UT
<ul style="list-style-type: none">• Responsible for opening and closing the store, managing chores, communicating with teammates, and helping customers with anything they need.	
Assistant Graphic Designer / Layout Artist <i>Utah Women's Mural</i>	JULY 2020 - AUGUST 2020 SLC, UT
<ul style="list-style-type: none">• Graphic design / arrangement of the mural• Remote workflow management	
Art Director <i>The Highland Rambler</i>	AUGUST 2019- JUNE 2021 SLC, UT
<ul style="list-style-type: none">• Redesigned the Highland Rambler newspaper and its branding• Created a remote file management / version control system	

Computer Programming Proficiencies

Python – Highly Skilled
Matlab – Proficient
C – Proficient
R – Proficient
C Sharp – Beginner
Java – Beginner
C/C++, Rust – Languages I am focusing on learning / using

Desktop RPN Calculator

Personal Project

- Created a fully functioning RPN calculator for desktop computers. Written in python.
- Features include: all standard scientific calculator functions, function definition, numerical integration and differentiation, numerical root-finding, matrix operations, variable definitions, powerful unit conversions, and more.
- See: <https://www.kinblandford.com/home/blank>

Microporous Medium Generation and Analysis Tool

Research Project

- WIP prototype software that generates microporous mediums. Written in python.

Automated Ping-Pong Ball Launcher

School Project

- Programmed a robot in Arduino C to automatically launch ping pong balls into targets. My team won the competition with highest accuracy and fastest completion time!

Numerical Modeling

School Projects

- Created a mathematical model and simulation of a pneumatic-piston powered train and performed multivariate optimization on its parameters.
- Created a mathematical model and simulation of a ball on a track to predict minimum release heights in order for the ball to make it around a loop-the-loop.

Double Acting Piston Pump

School Project

- Designed and prototyped a double acting piston pump.
- This particular design is original, and was an idea I have had since I was 8!

Misc Coding Projects

Coding Projects

- Wrote a small library that creates small visually interactive command line interface programs. Written in C Sharp.
- Created a 'box counting' program to study the fractal dimension of images. Written in python.
- Worked on creating a discord bot in JavaScript for a discord server I created for my major and year in college.

Awards & Honors

Utah Flagship Scholarship

University of Utah

2021-2024

Sterling Scholar - Skilled and Technical

Deseret News

2021

Valedictorian

Highland High

2021

Other Skills

Problem Solving: This is my particular forte

CAD: SolidWorks

Numerical Methods: Proficient in using numerical methods to solve engineering problems

Math: Extensive knowledge of PDE's, ODE's, Fourier analysis, and linear algebra

Materials Science: A strong grasp of material properties, behavior, and the design implications thereof

Physics: A notable intuition for statics and dynamics

Software (in general): Very quick to learn new software

Fabrication: Capable of operating heavy machinery and welding

References

Francesco Amendola - Owner of Sweetaly Gelato - +1 (xxx) xxx-xxxx