

McKinley Blandford

xxx East x Ave
SLC, UT, 84xxx

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

Education

University of Utah - College of Engineering
Mechanical Engineering B.S. Undergrad

AUGUST 2021 – MAY 2025
4.0 GPA

Research Experience

UROP Scholar

MAY 2023- AUGUST 2023

Utah Wearable Robotics Laboratory

- Worked under professor Haohan Zhang to create an eye-tracking based control system for a robotic neck brace.
- Worked with Pupil Labs API and single-board computers programmed in C.

Assistant Undergrad Researcher

JANUARY 2022- JUNE 2022

University of Utah Department of Mathematics

- 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

Supervisor

JUNE 2021- DECEMBER 2021, MAY 2022 - AUGUST 2022

Sweetaly Gelato

SLC, UT

- Responsible for opening and closing the store, managing chores, communicating with teammates, and helping customers with anything they need.

Projects (for many more, see: kinblandford.com/home/portfolio)

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/blang>

Automated Ping-Pong Ball Launcher

School Project

- Programmed a robot in Arduino C to automatically launch ping pong balls into targets.
- My robot won first place in a competition against 70 teams.
- See: https://github.com/nawper02/Ping_Pong_Launcher

Numerical Modeling / Optimization Project

School Projects

- Worked with two other engineers to create a mathematical model and simulation of a pneumatic-piston powered train and performed multivariate optimization on its parameters.
- Implemented exhaustive search, a modified Monte-Carlo optimization method, and multiprocessing in Python.
- See: https://github.com/nawper02/Numerical_Methods_Team.

Abilities

Languages : Python, MatLab, C

Software : Solidworks, Autodesk Fusion 360, Adobe Suite

Dev Tools : Git, VSCode, JetBrains IDEs, LLM's

Fabrication : Metalworking, Welding, Woodworking, 3D Printing

Awards, Honors, & Certifications

Texas Instruments Scholarship Recipient

Texas Instruments

2023

CSWA SolidWorks Certification

University of Utah

2021

CTE Welding and Machining Certification

Highland High School

2021

Certified Welding Technician

Highland High School

2021

Sterling Scholar - Skilled and Technical

Deseret News

2021

Valedictorian

Highland High

2021