McKinley Blandford

xxx East x Ave
SLC, UT, 84xxx

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

Education

University of Utah - College of Engineering AUGUST 2021 – MAY 2025
Mechanical Engineering B.S. Undergrad ***4.0 GPA*** *(raw, un-rounded)*

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, 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*