Eli Turner

1420 Josephine
Berkeley, CA 94703
(734) 649-5298
eyturner@umich.edu

A software engineer with a physics and math background. I'm passionate about helping people with engineering, and software engineering has an unprecedented ability to reach large-scale audiences. I want to leverage this ability to help as many people as possible.

PROJECTS

Personal Website — *eyturner.github.io*

Discord Dice Bot — *An improved dice bot for RPG games*

- Helps standardize dice rolls and facilitate initiative tracking
- Utilizes regular expressions to help parse user arguments
- Uses the Box-Muller transform in order to create a dice mode whose rolls follow a gaussian distribution

Missions — *Clean to-do lists with sub-lists*

- A simple UI with state-management using only VanillaJS
- Used localStorage to help manage state and keep users information available between sessions
- Utilized Express and OOP to help keep code modular and modifiable

Maze Algorithm Visualizer — *Animating maze creation*

- Utilizes Vue's reactive DOM to animate maze state changes
- Allows users to choose several algorithms and animation speeds

US Border Crossing Analysis — *Finding insights in messy data*

- Extracted data on US border crossings from large, unorganized dataset provided by the US government
- Organized dataset and began tracking running monthly averages for border crossings at each border using Python dictionaries
- Sorted data by four different metrics in priority order and loaded into CSV file for easy analysis

EDUCATION

University of Michigan, Ann Arbor, MI — *B.S.E in Physics*

SEP 2014 - MAY 2018

Graduated with a Bachelor of Science in Engineering Physics with a minor in Mathematics and a focus in Aerospace Engineering.

EXPERIENCE

Bridges Rock Gym, El Cerrito, CA — *Front Desk Staff*

APR 2019 - PRESENT

- Voted "Most Valuable Desk Staff" of 2019 by managers of the gym
- In charge of weekly deposits and maintaining till balance
- Ensured proper opening of gym, including facility maintenance, cleaning, and preparation for events

Plasmadynamcis and Electropropulsion Lab, Ann Arbor, MI — *Student Research Assistant*

JAN 2018 - MAY 2018

- Fabricated a waterfall board using scroll saw and drill press to minimize systematic error from wire tension
- Fabricated nylon thimble using drill press and lathe to replace standard tape in order to prevent electrical arcing
- Designed a new waterfall board to fix problems such as hole spacing and placement from previous board
- Calibrated and tested pressure in a vacuum chamber in order to gauge various ampacities of wires

PROGRAMMING LANGUAGES

SKILLED

Python, Javascript (ES6), HTML/CSS, C++

FAMILIAR

Node.JS, BASH, MatLab, Wolfram

DEVOPS

SKILLED

ESLint/Prettier, NPM, Jest, Git, Vue.JS/Vuex, Bootstrap

FAMILIAR

MongoDB/Mongoose, Express, Webpack

RELEVANT COURSEWORK

CS: Introductory Elements of Programming, Programming Data and Structures

MATH: Single Variable Calculus, Multivariable Calculus, Differential Equations, Linear Algebra.

ONLINE: Full-Stack JS Development from The Odin Project, Python Algorithms and Data Structures from Runestone Academy

PHYSICS: Introduction to Modern Physics, Intermediate Mechanics, Intermediate Electricity & Magnetism, Statistical Mechanics

LANGUAGES

SPANISH

Proficient in reading, writing

Elementary in speaking

JAPANESE

Proficient in reading

Elementary in writing, speaking