

# ELLE SZABO

[WEBSITE](#) | 614-302-6552 | [EMAIL](#) | [LINKEDIN](#) | [GITHUB](#)

## EDUCATION

### University of Southern California

*B.S. in Computer Science*

Los Angeles, CA

*May 2023 (Expected)*

- Major GPA: 4.0/4.0
- Activities: Treasurer at VEX Robotics USC, Track Club

## EXPERIENCE

### Microsoft | C/C++, PowerShell

*Software Engineer Intern*

May 2021 - Jul 2021

*Redmond, WA*

- Created a proof-of-concept search indexing system to replace Windows' pre-relational-database indexer

### NASA Jet Propulsion Laboratory | ROS, Gazebo, Linux, librealsense

*Software Engineer Intern*

Sept 2020 - Jan 2021

*Pasadena, CA*

- Expedited the simulation boot by 22% by creating a custom physics engine plugin

### Total Metal Recycling | Java, Swing, Eclipse, Python

*Software Engineer Intern*

May 2019 - Aug 2019

*Santa Monica, CA*

- Used Java to develop web applications for employees using a relational SQL database
- Created a VBScript to Java transpiler to translate thousands of stored procedures

## SELECTED PROJECTS

### Personal Website | React.js, HTML/CSS, JavaScript, Bootstrap

Aug 2022 – Present

- Engineered personal website to include Bootstrap animations
- Implemented Bootstrap Navbar, Cards, and Typewriter
- Modified the color palette using hand-selected hex codes
- Created toggle animations and Tilt effects on most objects

### Vision and Language Navigation | Python, OpenAI Gym, PyTorch, Flask

Aug 2022 – Present

- Customized the Interbotix ROS API to stream RGB-D Realsense D435 data to web app
- Currently researching mid-level vision and contrast set techniques improving upon navigation sbenchmarks
- Research under *Jesse Thomason* in GLAMOR Laboratory

### Twitch Chat Sentiment Analysis | JavaScript, CSS, HTML, Flask, Socket.io, numpy

Feb 2022

- Developed a chrome extension that scrapes Twitch chat data and visualizes sentiment in real time
- Connected nltk sentiment library via socketing to browser client

### Mobile iOS Bird-esque Application | Swift, XCode, Firebase, Heroku, Stripe

December 2020

- An iOS app that displays objects for rental with realtime Firebase database queries and Stripe checkout screen

## AWARDS/HONORS

### 2nd Skills in World, Think Award

*2022 VEX Robotics World Championship*

- As programming lead on team of 5, scored 2<sup>nd</sup> of world's top 72 teams in skills
- Earned Think award for innovative use of autonomous optical scoring sensor

### Presidential and University Scholarship Recipient

*University of Southern California*

- One of 200 chosen out of 64,000 applicants for a half-tuition merit scholarship plus \$4000 award

### National Merit Scholar

*National Merit Scholarship Corporation*

- \$2500 scholarship for top 0.5% of 1.6 million for ability in mathematics problem-solving, reading, and writing

## TECHNICAL SKILLS

**Languages:** Python, C/C++, SQL, Swift, C#, JavaScript, Java, HTML/CSS, Latex

**Platforms:** ROS, Linux, Raspberry Pi, Powershell, Heroku, Unity, Make, OpenAI Gym, Docker

**Libraries/Tools:** React.js, Bootstrap, PyTorch, OpenCV, conda, Flask, Firebase, Stripe, GTest, AWS, OpenAI API

For a layout of all of my projects, please visit my [Website](#).