# **XAVIER KUEHN**

# **TECHNICAL SKILLS**

**Front End\*** | React, JavaScript, TypeScript, CSS

Back End | Python, C, C++, PostgreSQL\*, Node.js, MongoDB, Authentication\*

**Developer Tools** | Docker\*, Git, npm, Agile Methodology

\* currently aquiring

# **EXPERIENCE & PROJECTS**

# **Student Intern | Robotics Systems Laboratory**

Feb 2022 - Present

Multi-faceted, cross-disciplinary role to smooth lab operations

C++ | Arduino | Matlab

- Facilitated set up of new computers adhering to lab standards and practices and distributed them to project teams
- Assisting with Graduate and Doctorate projects: prosthetics, remotely operated underwater vehicles
- Reinforcing hard skills of Matlab, C++, and Arduino through on-the-job applications
  - Prosthetic Hand (Arduino): Low-cost hand prosthetic; implemented an accelerometer to track movements and gestures
  - Vertical Profiler (Arduino, GPS): Collects sensor readings from various depths; implemented GPS for device tracking
  - Satellite Tracking (NOVA): Computer system for tracking satellites; antenna rotator connected to NOVA software

# **Class Registration Python Bot**

Python | Selenium | Pandas

• Python bot that automatically registers for classes given list of course numbers in CSV format

# **Todo Web Application**

JavaScript | EJS | MongoDB | Express | Node.js

• Backend implementation of a todo web application with MongoDB and simple UI

#### **JWT Authentication**

TypeScript | GraphQL | PostgreSQL | Node.js

• GraphQL API using Apollo, PostgreSQL, and JWT for user authentication

# **User Registration Web Application**

JavaScript | MongoDB | Express | React | Node.js

• User registration implementation using bcrypt for password protection and joi for data validation

#### REST API

JavaScript | Express | MongoDB | Node.js

• RESTful API with Node.js, Express, and MongoDB that supports CRUD operations

# **EDUCATION**

# Santa Clara University | Bachelors of Science

Expected graduation, Jun 2024

Computer Science and Engineering

- Relevant Courses: Object Oriented Programming, Data Structures, Machine Learning, Computer Networks, Embedded Systems, Linear Algebra, Algorithms, Satellite Operations
- Aided doctoral student in setup of test bed for Decabots (10 swarm robots) and OptiTrack 3D sensor system (Feb 2022

   May 2022)
- Tutor peers in classes of my expertise through the Tau Beta Pi Honor Society

### **AWARDS & RECOGNITION**

**Tau Beta Pi Engineering Honor Society Member**: Invited for being in the top 1/8 of the entire SCU Junior class (2022) **SCU Dean's List**: Achieved a grade point average in the top ten percent of the SCU sophomore class (2021)

**Patti Grace Smith Fellowship Finalist**: One of 30 finalists for internships with leading aerospace companies (2021)