# KOBY BARRETT

kobybarr.dev@gmail.com

# **E**DUCATION

#### Sacramento, CA

### **California State University, Sacramento**

Fall 2018 – Dec 2022

- Major: Computer Engineering, B.S.E. (in-major GPA: 3.75)
- Programming Coursework: Algorithms & Data Structures, Operating Systems, Networks, Machine Learning
- EE Coursework: Embedded Systems, Computer Arch., Circuits, Logic Design, VLSI Design

#### Remote

### **UC Berkeley Bootcamp**

July 2023 - Jan 2024

- Program: Full Stack Coding Bootcamp
- **Technologies Used:** HTML, CSS, Javascript, Node.js, Express, SQL, NoSQL, MongoDB/Mongoose, GraphQL, React, Redux Toolkit, Websockets, Bootstrap, Material UI, ChatGPT, Jira, Git/Github

#### **EMPLOYMENT**

## **Technical Analyst**

#### **Inductive Automation**

Feb 2023 - Present

- Worked on tickets to help customers with troubleshooting and/or creating solutions ranging from:
  - Analyzing wireshark captures to determine network activity for sessions between clients and servers
  - Reviewing logs to discover any output from our software that could help lead to a solution
  - Creating/optimizing Python scripts or SQL queries to help the development of a customer's project
- Graded customer's certification tests
- Answered questions that were posted to our forums

### **IT Administrative Assistant**

# **Matheson Trucking Inc**

Dec 2021 - Feb 2023

- Managed and created user accounts with Windows Active Directory
- Wiped and set up operating systems on computers
- Wired warehouses for their OT network and measured network speeds

### **S**OFTWARE PROJECTS

#### Social Media Website Clone

- Developed a Twitter-inspired social media app to connect users to each other
- Used React and Redux Toolkit to manage the user's view and state of the application
- Integrated websockets for real-time messaging in chat rooms and notifications
- Managed all models (users, posts, chatrooms, messages, etc.) with Mongoose
- <u>Utilized</u>: Javascript, React, Redux Toolkit, Express, Mongoose/MongoDB (NoSQL), Node, GraphQL API,
  Websockets, Material UI

# **Self-Driving RC Car**

- Implemented a manual and self-driving rc car that can be controlled with a playstation controller
- Used OpenCV to manipulate the input images coming from an USB camera
- Trained neural networks using Pytorch with handmade datasets
- Optimized performance by integrating multithreading to handle the ultrasonic sensor and image input in separate threads
- <u>Utilized</u>: Python, OpenCV, Pytorch, Neural Networks/Machine Learning, Raspberry Pi

#### **Operating System**

- Created an operating system that reacts to user input and schedules simple processes
- Developed drivers for a VGA text display, keyboard, and a TTY interface
- Implemented interrupts for keyboard input, a PIC timer, and software interrupts
- <u>Utilized</u>: C, Assembly, Makefile, Virtual Machines, Linux

### **Skills**

Software: (proficient) Javascript, Python, HTML/CSS (familiar): Java, C, SQL