# **Brent Lee**

brent\_lee@berkeley.edu | Torrance, CA | (657) 731-5221 LinkedIn: www.linkedin.com/in/brent-lee-165806247 | Website: https://overlordpro-sys.github.io

Dedicated and tenacious engineering student with a passion for electronics and machine autonomy/intelligence. Seeking an internship/part-time position to apply my problem-solving and hands-on experience, with a focus on working toward a career involving PCB design, embedded systems, or Al-driven applications in computer engineering

#### **EDUCATION**

#### **University of California, Berkeley**

May 2028

BA: Electrical Engineering & Computer Science Relevant Coursework: CS 61A, EECS 16A, Math 53

# Valencia High School, Placentia

Jun 2024

International Baccalaureate (IB) & ValTech (technology) Diploma - 4.76 GPA

#### **SKILLS**

Languages & Frameworks: Python, Java, C++, C#, Javascript, HTML, CSS, Bootstrap, Vue.js

Tools & Platforms: Azure Cloud Services, Git, Jupyter Notebook, Linux, KiCad, SOLIDWORKS/Fusion 360

Specialized Skills: Cybersecurity, Machine Learning (Pytorch), Computer Vision (OpenCV)

Soft Skills: Communication of complex/technical topics, comfortable working independently and collaboratively

# **HIGHLIGHTED EXPERIENCE & PROJECTS**

Software Development Intern - Parsec Automation Corp. | Yorba Linda, CA

Jun 2023 - Jul 2023

- Implemented Azure cloud services into TrakSYS web app for functionality/scalability using C# and Javascript
- Prototyped Optical Character Recognition (OCR) to eliminate data entry errors for clients
- Assessed Al language model use with database access to improve user database search and access experience

## Project: Custom 'Arduino Micro' Mechanical Keyboard

Jan 2022 - Aug 2022

- Learned inner workings of mechanical keyboard and keyboard matrix functionality
- Used KiCAD to design printed circuit board (PCB) schematic and layout
- Interacted with vendors to laser cut stainless steel plate and used C for Arduino firmware

## **Project: OpenCV Aim Automation**

Apr 2022 – Sep 2022

- Developed Python script to autonomously track and hit targets in non-competitive mode of AimLabs aim trainer
- Attempted **TensorFlow object detection**, creating script to create additional training data with pretrained model
- Used OpenCV to process image frames and color segmentation to isolate and detect targets

# **LEADERSHIP & EXTRACURRICULARS**

### Valencia Robotics Team 4470

Aug 2023 - Jun 2024

Programming Lead

- Directed a 10-member programming team; researched, developed, & troubleshooted PID telescopic arm, pneumatic and motorized feeder, and vision systems for 2023/2024 FIRST Robotics Competition
- Coordinated with mechanical/electrical teams ensuring 100% compatibility with hardware, sensors, and systems
- Oversaw project planning/task allocation, delivering competition-ready robot in one month & secured SoCal Showdown 2023 regional 2nd place finish

## Valencia E-Sports Club

Aug 2022 - Jun 2024

President

- Fostered a 60+ member gaming community by organizing fundraisers and an annual Smash tournament, raising over \$200 and increasing engagement
- Supervised and assigned tasks to a **10-person board**, managing competitive teams across 5 different titles and hosting monthly social meetings
- Collaborated with faculty to secure approval for six figure cost dedicated gaming room

# Valencia Cyber Security Club

Aug 2023 – Jun 2024

Vice President

- Managed weekly meetings for 70+ members, organized speaker panels and mentored in Linux administration
- Led competition team to platinum tier finish in CyberPatriot competition & 3rd place finish in annual SoCal Cyber Cup CTF Challenge
- Worked with club president to delegate responsibilities to 8-member board to organize for events and competitions