

# Bryan Chang

chchang9@illinois.edu | 217-200-2182

linkedin.com/in/bryanchang9 | github.com/Bryan1203

## EDUCATION

### University of Illinois at Urbana Champaign

Expected Graduation: May 2025

#### *Bachelor of Science in Computer Engineering*

Cumulative GPA: 3.81/4.0

Dean's List: 2022 Spring, 2022 Fall

**Related Coursework:** Signal Processing, Computer Systems & Programming, Circuit Design, Data Structure, Linear Algebra, Differential Equation

## PROJECTS & EXTRACURRICULAR ACTIVITY

### Hydrologic | *Back End / Data Network Designer*

Champaign, IL | 2023 Nov–Present

- Developing a water meter leveraging esp32 technology to capture and analyze water usage data across UIUC dormitories with the intention of contributing to campus sustainability goals by visualizing water usage data and aiming to reduce overall water consumption.
- Architecting a bridge infrastructure to seamlessly connect AWS databases with IoT devices and mobile applications.
- Collaborating on the creation of user-friendly mobile applications, ensuring convenient access to real-time water consumption data.

### Heart-Rate Controlled Fan Project [link](#)

Champaign, IL | 2021 Aug–Oct

- Developed a heart monitor-controlled fan system, to address discomfort and inefficient cooling in indoor cycling workouts. This system dynamically adjusts fan speed based on the user's heart rate in real-time, optimizing comfort and performance as opposed to traditional fans failing to adapt to the user's changing cooling needs during intense workout moments.
- Overcame integration challenges between the heart monitor sensor and the fan controller through research on varieties of Bluetooth protocol.
- Successfully integrated heart rate data with the fan and indoor cycling software, although occasional connectivity issues may disrupt real-time data transmission.

### Illini VEX Robotics | *Active Member*

Champaign, IL | 2021 Aug–Dec

- Collaborated with a 6-person team to research and implement an image recognition application as part of the Ball Balancing Project.
- Successfully implemented PID control for the servo motor, utilizing image data analysis to achieve precise ball balancing on a surface.
- Utilized skills in Image Recognition, and Machine Learning to contribute to the project's success.

### Illini 4000 | *2022 Bike America Team Rider*

Champaign, IL | 2021 Aug–2022 Aug

- Fundraised over 4000 dollars for cancer research by organizing fundraising events and connecting to local businesses.
- Collaborated with a local coffee shop to plan and promote a fundraising event and worked closely with the coffee shop's management to create a cohesive plan for the fundraising event, including designing promotional materials, such as flyers and social media posts, to raise awareness within the community.
- Finished 4500 miles cross-country bike rides, 75 days, from New York to San Francisco in 2022 summer.

## EXPERIENCE

### Bike Lab by Neutral Cycle | *Bike Mechanic*

Champaign, IL | Aug 2022–Present

- Consulted with an average of 20 customers per week regarding products and services, providing recommendations and generating sales.
- Executed an average of 10 bicycle repairs, part replacements, tune-ups, and general maintenance tasks weekly.
- Train new mechanics, provide hands-on guidance and share expertise in bicycle repair and maintenance.

### Amos Kids | *Interim Teacher*

Taipei, Taiwan | Jun 2018–Aug 2020

- Designed and executed a two-week summer STEM camp for middle school students, featuring a curriculum that integrated coding with hands-on experiences using IoT devices such as Raspberry Pi.
- Employed a dynamic teaching approach, breaking down complex coding concepts into digestible units while using real-life metaphors to enhance understanding.
- Students had developed a foundational understanding of Python programming, gained confidence in coding, and IoT applications for future STEM endeavors.

## AWARDS & LEADERSHIP

### International Schools Cyberfair Golden Award | *Team Captain*

Taipei, Taiwan | 2018 Sep–2020 Sep

- Led a 10-person team in developing two research websites focusing on [vanishing traditions](#)(2020) and [stray animals](#)(2019).
- Produced compelling interview videos to enhance the presentation and storytelling of the research projects, offering a personal and relatable perspective on the issues explored.

## SKILLS

**Programming Language & tools:** Java, C, C++, Python, LC-3, x86, Fusion 360, tinkercad, git

**Interpersonal:** Customer service, teaching & training. Native proficiency in **English** and **Mandarin**