

Owen Wang

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EDUCATION

University of Illinois at Urbana-Champaign

Urbana, Illinois

B.S. in Computer Engineering, James Scholar Honors Program

Expected Graduation, May 2027

- **GPA:** 3.96/4.00
- **Courses:** Computer Systems and Programming, Intro to Computing, Discrete Structures, Linear Algebra, Calculus III, Intro to Electronics.

Additional Courses: Udemy TensorFlow for Deep Learning, Udemy Data Structures & Algorithms in C++

TECHNICAL SKILLS

Programming Languages: C++, Python, JavaScript, TypeScript, Java, SQL, HTML, CSS

Frameworks: React.js, Next.js, Django, Spring Boot, TensorFlow, OpenCV, STM32, KiCAD

Databases: PostgreSQL, Supabase, Firebase

WORK EXPERIENCE

JACS Solutions Inc.

June 2024 – Present

Embedded System Engineering Intern

Baltimore, MD

- Designed **FOTA** features for **MDM** by establishing **bi-directional** communication between server and devices.
- Migrated frontend to **React.js** and leveraged **Spring Boot REST** framework for **MySQL** database connectivity, enhancing **CRUD** operations and optimizing server performance by **5%**.
- Performed **QA** and firmware testing for **250+** devices utilizing **AT Commands** and **flashing** firmware.

Hydrologic

Oct 2023 – May 2024

Project Lead

Urbana, IL

- Established an **ESP32 to Firebase Realtime-Database** connection to retrieve University Housing shower statistics and analyzed data to reduce average water consumption by **10%**.
- Led a **group of four** to architect the core structure of the web-app using **React.js**, **Tailwind CSS**, and **Chart.js**, implementing filtering, saving, and comparison functionalities.
- Utilized **Jira** to apply **SCRUM** principles, delivering **20%** ahead of schedule and **10%** under budget.

UIUC EV Concept

Aug 2023 – Jan 2024

Electrical Team

Urbana, IL

- Developed BMS monitoring system by **integrating a PCB** that measures cell voltage, temperature, and current.
- Trained a **neural network** that estimates SOC using **linear regression** via a **supervised learning** approached with recorded values from a **MATLAB** simulation.
- Implemented model onto Microcontroller through **C++** and **STM32 IDE**, improving efficiency of BMS by **30%**.

UIUC Vex Robotics

Aug 2023 – Jan 2024

Software Team

Urbana, IL

- Created a **computer vision** model using **OpenCV** and **Python** to detect green “acorn” shaped objects.
- Developed an algorithm that **tracks** and **draws** contours at varying distances/lightings by estimating circularity

PROJECTS

Spotify Vault | *React.js, Django, PostgreSQL*

May 2024 – July 2024

- Designed a web application to **track, store, and display** historical Spotify statistics, integrating **Spotify API** with a **React.js** frontend and **Django** backend connected to a **PostgreSQL** database.
- Built **RESTful API** in **Django** with **CSRF tokens** to ensure secure and efficient data processing.

Recipe Generator | *React.js, Flask*

Feb 2024 – May 2024

- Conceptualized and implemented **UI** and **search algorithm** using **React**, **Tailwind**, and **Spoonacular API**.
- Integrate backend functionality using **Flask** to store and manage API calls, saved recipes, reviews, and user data