

Owen Wang

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EDUCATION

University of Illinois at Urbana-Champaign

Urbana, IL

B.S. in Computer Engineering, James Scholar Honors Program, Dean's List

Expected, May 2026

- **GPA:** 3.97/4.00
- **Courses:** Parallel Programming, Data Structures and Algorithms, Computer Systems and Programming, Probability in Engineering, Analog Signal Processing, Linear Algebra, Differential Equations
- **Additional Courses:** TensorFlow for Deep Learning, Langchain & LLMS, Data Structures and Algorithms

TECHNICAL SKILLS

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

Frameworks: React.js, Next.js, Django, Spring Boot, TensorFlow, LangChain, CUDA

Databases/Cloud: PostgreSQL, Firebase, AWS (EC2, S3), Docker

EXPERIENCE

JACS Solutions

June 2024 – Aug 2024

Software Engineering Intern

Baltimore, MD

- Designed FOTA (firmware over the air) features for mobile device management system housing 10,000+ devices.
- Applied Spring Boot to create WebSocket management system with SSL communication and session management.
- Migrated frontend to React.js, enhancing client-side CRUD operations and optimizing server performance by 5%.
- Refactored backend logic into a Model-View-Controller architecture, streamlining FOTA management and saving customers 3+ hours of external manual work.
- Drafted and deployed integration tests to evaluate API and controller with the Spring Boot testing library.

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 weekly water consumption by 10%.
- Led a group of four to architect filtering, saving, and comparison functionalities using Next.js and Tailwind CSS.
- Applied SCRUM principles through Jira, delivering product 20% ahead of schedule and 7% under budget.

UIUC EV Concept

Aug 2023 – Jan 2024

Electrical Team

Urbana, IL

- Trained a neural network in TensorFlow that estimates State of Charge using linear regression via a supervised learning approach with simulation values, improving BMS efficiency by 30% upon implementation.

PROJECTS

Skim Lit | *TensorFlow, NLP*

Aug 2024 – Aug 2024

- Engineered a multi-modal NLP model that uses RNNs to summarize and classify scientific paper abstracts.
- Performed experiments on 5 models, achieving a classification accuracy of 88% with BERT embeddings and feature engineered positional embeddings.

Dish Detect | *TensorFlow, Streamlit*

July 2024 – Aug 2024

- Utilized feature-extraction and fine-tuning to create a CNN model that classifies food present in an image.
- Achieved a model f1-score average of 85%, beating the 2016 University of Massachusetts Deep Food paper by 7% in only 2.5% of the training time.

Chain GPT | *LangChain, StreamLit*

July 2024 – Aug 2024

- Developed an interactive LangChain document chatbot using RAG to an OpenAI embedded Pinecone VectorDB.
- Incorporated agentic RAG with ReAct and model memory increasing output accuracy and precision.

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.