

# Marco Wang

🏠 marcowang.me | 📧 marcowang01 | 📺 marco-01 | Los Angeles, CA

## Work Experience

### rabbit inc.

Los Angeles, CA

#### Software Engineer, Cloud

Feb. 2024 - Present

- Spearheaded the development of LAM Playground (Large Action Model), processing 10K+ monthly interaction, launching one of the first consumer facing computer-use AI assistants, enabling users to control virtual browsers via LLM agents.
- Led redesign of core AI agent architecture and implemented a planning system, handling 50+ action types and reducing task failures.
- Designed and implemented a generative UI system enabling real-time interface customization on the r1 device, resulting in 60% of active users creating personalized layouts and increasing daily user retention.
- Built the user web portal (hole.rabbit.tech) from 0-to-1, supporting 80K+ users and reducing onboarding-related support tickets by 70%.
- Developed the internet search and memory retrieval system, handling 50K+ daily queries, enabling assistant to process complex multi-turn requests, improving response accuracy and removing irrelevant results.

### The Boring Company

Las Vegas, NV

#### Software Engineer Intern

Jun. 2023 - Aug. 2023

- Developed a full-stack fleet maintenance platform using React and PostgreSQL, reducing vehicle downtime and consolidating 100+ monthly maintenance tickets with 30+ hour monthly time savings.
- Architected and deployed a simulator for the Vegas Tunnel Loop, validating collision safety scenarios and future station designs.
- Built a physics engine in Godot that simulated vehicle dynamics and passenger flow with more than 90% accuracy, enabling 30% throughput increase in capacity planning.
- Implemented a cache-based path-finding algorithm for the simulator, reducing average compute time from 3 minutes to 10 seconds.
- Created a regulatory compliance dashboard monitoring 200+ processes, improving completion rates by 25% through automated alerts and reducing compliance audit preparation times.

### Workiva Inc.

Chicago, IL

#### Software Engineer Intern

Jan. 2022 - Aug. 2022

- Optimized fonts and file I/O for an online document editor, improving document processing efficiency and reliability, using Java/Go.
- Automated a critical weekly font upload process by building a browser-based client using PHP and Bash, reducing time spent by 90%.
- Improved document color fidelity by 20% on PDF export for charts and images by contributing to and integrating open-source software.
- Designed and built a smoke testing suite using Puppeteer, improving code coverage and efficiency of detecting breaking changes.

## Technical Projects

### Personal Projects

Los Angeles, CA

#### Self-Directed

Jan. 2022 - Present

- **Scribe:** Coded a web app to generate notes in real-time from lectures by using LLMs and vector stores, optimizing student workflows.
- **Tomo:** Built an LLM-based toy, enhancing children's learning through story-driven dialogues, using async audio interfacing in Python.
- **Platz UI:** Developed a designer-centric UI component library in NextJS, streamlining the design-to-implementation process.

### Igloo

Evanston, IL

#### Full Stack Developer

Feb. 2022 - Sep. 2022

- Handled full-stack tasks for the development of a social media chat app using Laravel, Firebase and React Native.
- Implemented CRUD APIs and designed database schemas for user messaging using the model-view-controller pattern in Laravel.
- Deployed and tested an MVP, validating design choices through active feedback from a 30-student pool.

## Education

### Northwestern University

Evanston, IL

M.S. in Computer Science, B.A. in Physics [GPA: 3.9/4.0]

Mar. 2024

## Skills

### Programming

Typescript · Python · Go · Java · C/C++ · SQL · Jupyter · PHP · Bash · C#

### Technologies

Node.js · NextJS · MongoDB · postgresSQL · Docker + K8s · supabase · Firebase · sqlite · PyTorch