

Koji Wong

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EDUCATION

Washington University in St. Louis

Aug 2024 – May 2027

B.A. Computer Science + Mathematics — GPA: 3.9 — Dean's List

St. Louis, MO

- **Courses:** Data Structures & Algorithms, Object-Oriented Software Development, Rapid Prototype Development, Matrix Algebra, Calculus III, Biomedical Computing, Biotechnology Entrepreneurs, Science of Biotechnology
- **Awards:** 4x Hackathon Winner (\$3850), Coding it Forward Fellow (<2%), Morgan Stanley Tokyo Early Insights Fellow

EXPERIENCE

Software Engineering Intern

May 2025 – Present

New York City Mayor's Office for Economic Opportunity

Remote

- Replatformed legacy eligibility logic into **Python AWS Lambda** functions and deployed via **AWS API Gateway** using infrastructure-as-code, improving performance and maintainability.
- Built CI/CD pipelines and wrote unit, integration, and load tests to support **200,000+** yearly API requests.
- Collaborated with civic technologists to ensure compliance with public sector data privacy requirements.

Artificial Intelligence Research Assistant

Nov 2024 – Present

Washington University in St. Louis - Dr. Sibai

St. Louis, MO

- Built large-scale **Habitat simulator** pipelines to collect training data for autonomous vehicle decision systems.
- Integrated controller models to run **100K+ virtual trials**, enabling cost-efficient policy training at scale.
- Customized simulation configs and agent logic in **PyTorch** to improve realism and evaluation coverage.

Software Engineer Team Lead

Sep 2024 – Present


Google Developer Group WashU

St. Louis, MO

- Led engineering of a data tool adopted by a WashU medical lab using **React**, **TypeScript**, **FastAPI**, & **GCP**.
- Managed sprints and mentored 5-person team on scalable architecture and full-stack debugging.
- Built frontend of a cross-platform mobile app for a nonprofit connecting young mothers with mentors.

Founding Software Engineer

Oct 2024 – Feb 2025

Social Fabric LLC 

St. Louis, MO

- Sole frontend engineer for a location-based mobile social platform using **React Native**, **Expo**, and **TypeScript**.
- Designed reusable components, state logic, UI/UX patterns, geo-tagging, and notifications in a performant mobile-first architecture. Worked with design co-founder to map MVP features based on pilot user feedback.

PROJECTS

Generalized Cameraman AI Agent | *Python, SciPy, OpenCV, React, Electron*

May 2025 – Present

- Created an AI cameraman desktop app that detects and smoothly zooms/pans to follow core action in video input using **Kalman filters**, **spline interpolation**, **multimodal models**, & **OpenCV**.
- Built cross-platform GUI with **React** and **Electron**, supporting real-time preview and parameter tuning.

WashU Sublet Connect | *React, Supabase, PostgreSQL*

May 2025 – Present

- Developed a Zillow-like full-stack marketplace app for WashU students to sublet apartments. 30+ early users.
- Implemented instant listings, WashU user verification, structured PostgreSQL data & RLS policies via Supabase.




Supabase Social Media Starter Template | *React, TypeScript, Supabase*

May 2025

- Designed a modern social media starter template using **React**, **Zustand**, **TailwindCSS**, and Supabase auth/storage APIs. Accepted as an **official Supabase community template** with **65+** unique clones

Winning Hackathon Projects | *NextJS, FastAPI, Python, JavaScript, React, Swift*

Oct 2024 – April 2025

- **Unveil AI**  (Finalist @ WashU Google DevFest): Built a Gemini-powered onboarding tool with a **NextJS** frontend, **FastAPI** backend, and an **AI software engineer** call-agent with a vectorized codebase knowledge base
- **InternX**  (2nd @ WashU Meta × 8VC): Created an **AI-powered** networking tool using **React** & **Express.js**.
- **Bear Eats**  (Winner @ Hack WashU): Built a Swift iOS app to recommend nutritious campus meals

TECHNICAL SKILLS

Languages: Python, Java, C, C++, C#, Swift, TypeScript/JavaScript, HTML, CSS, SQL, Zsh

Technologies: PydanticAI, LangGraph, React, Next.js, Expo, Express, FastAPI, PyTorch, TensorFlow, Tailwind, Pandas, PostgreSQL, Git, Supabase, Google Cloud Platform, Docker, FastMCP, Postman, Zustand, OpenCV, Electron