

CARL VINCENT KHO

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SKILLS

AI/ML: Pandas, PyTorch, TensorFlow, NLP, Multimodal Agents, SK-Learn, OpenCV, Knowledge Graph, Embedding.

Languages: Python (4 years), JavaScript (3 years), C# Unity (2 years), C/C++ for Arduino (3 years), SQL (2 years)

SWE: Azure, AWS, OpenAI, GCP, Stripe, Figma, Docker, GitHub, REST API, Android, iOS, Typescript, & NodeJS.

RESEARCH EXPERIENCE

Somach ([Research Website](#))

Taipei, Taiwan

Principal Investigator (Human-Computer Interaction)

Jan 2025 – Present

- Authoring: "Pareto-Optimal Model Selection for Low-Cost EMG Control." 18 models, 1.54M datapoints.
- Custom MaxCRNN (Inception+Bi-LSTM+Attention): 99% Precision, 94% F1 on safety-critical clench class.
- Replicating MIT AlterEgo for \$30: 2× AD8232 (ECG→speech EMG) + transfer: mouthing→subvocalization.

Northeastern University (*ReGame XR Lab*)

Boston, MA

HCI Research & Game Developer Intern

June 2023 – Aug 2023

- UE5 VR therapy for autistic children: Tobii eye-tracking under NSF grant, targeting 15% joint attention gain.
- Unity game + Dexcom CGM API diabetes viz; designed WCAG 2.1 AA accessible UI for neurodivergence.

Universidad Abierta Interamericana (UAI)

Buenos Aires, Argentina

Technical Research Assistant (*Springer URL # 1 / # 2*)

Sep 2024 – Dec 2024

- Collaborated to pilot an open-source robotics platform for 6 Argentinean schools. Node.js, C++, & Arduino.
 - 35+ FPS embedded vision on Portenta H7; PID control (Ziegler-Nichols): <0.5s response, <10% overshoot.
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PROFESSIONAL EXPERIENCE

Minerva University (*WURI's #1 Most Innovative University*)

San Francisco, CA

Teaching Assistant (*CS162 Software Engineering*)

Sep 2025 – Present

- Instruct using Socratic methods in full-stack development, design patterns, and Agile. Weekly office hours.

Dell Technologies

Austin, TX

Software Reliability Engineer Intern (*Chaos Engineering*) (*Infrastructures Solutions Group*)

May 2025 – Aug 2025

- Architected end-to-end TUI framework on Kubernetes, reducing Time-to-Insight for system failures from hours to under 5 minutes via local AI (Ollama) for automated log analysis & Chaos Mesh for fault injection.

Edgur (*"Tiktok for Education" Startup*)

Atlanta, GA

AI/ML & UX Engineer

May 2024 – Sep 2024

- Leveraged OpenAI embeddings to enhance recommendation algo, resulting in +20% user engagement.
- Increased savings by developing a live metrics dashboard on Django & Heroku Postgres. (- \$39/mo).

Gensler

San Francisco, CA

Lead Student Designer & Consultant

Oct 2022 – May 2023

- Collaborated & created LoFi 32 HiFi screens (5 iterations) for personalized airport navigation at SFO.
 - Analyzed SFO passenger satisfaction surveys (n = 2,810) to identify pain points in the airport experience.
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SELECTED PROJECTS

Padayon Ko · [Winner of Google's AI for Impact \(\\$8,000\)](#) · [github/padayon-ko](#)

July 2024 – Jan 2025

- Gemini embeddings + Vector Search: matched 500+ Filipino students to scholarships. I secured \$95k via it.

Open AI - Cookbook Contribution · [openai/openai-cookbook/pull/1271](#)

July 2024

- Developed and documented a Python module for real-time microphone transcription using Whisper API.
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EDUCATION

Minerva University (*Graduating May 26, 2026*)

San Francisco, CA

BSc of Applied Computer Science & AI (*Minor: Cognition, Behavior, & the Brain*)

Sep 2022 – May 2026

- 1.9% admit rate; 7 global cities. \$95k scholarship. Advisor: Prof. Patrick Watson, PhD (Comp. Neuroscience).
- **Courses:** Computational Neuroscience, DS & Algorithms, SWE, AI/ML, Game Development, Design.