# Chau Vu

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#### **EDUCATION**

# 2022-26 Pomona College

B.A., Computer Science and Math

GPA: 3.94/4.00

Primary advisors: Professor Jingyi Li & Professor Alexandra Papoutsaki (Pomona College), Professor Daniel Epstein (University of California, Irvine)

Research interests: Human-AI Interaction, Multisensory systems, 3D Graphics, Creativity Support Tools, Personal Informatics

#### **PUBLICATIONS**

# **Conference Publications**

Jiaju Ma, **Chau Vu**\*, Asya Lyubavina \*, Jingyi Li. "Computational Scaffolding of Composition, Value, and Color for Disciplined Drawing"

TUIST 2025 [Acceptance Rate 22%] Best Paper (Top 0.2% of Submissions)

Julianne Louie\*, Tara Mukund\*, **Chau Vu**\*, Daniel A. Epstein, Alexandra Papoutsaki. "Understanding Temporality of Reflection in Personal Informatics through Baby Tracking"

TCHI 2025 [Acceptance Rate 25%] Best Paper Honorable Mention (Top 5% of Submissions)

#### In Submission

2025 Alexandra Papoutsaki, Mustafa Taha Dişbudak, Lily Galvan, **Chau Vu**, Daniel A. Epstein.

"Understanding Adoption, Use, and Abandonment Practices in Baby Tracking" Planned submission to CHI 2026

#### Symposiums/Workshops

2024 **Chau Vu.** "Mapping the Current Landscape of Care Robotics: A Focus on the United States". The History and Future of Care Robots Symposium 2024

Daisy Abbott, Anjali Nuggehalli, Francisco Morales Puente, **Chau Vu**, Ella Zhu, Anthony J. Clark "Creating Dynamic Simulation Environments With Unreal Engine 5"
Southern California Robotics Symposium (SCR 2023).

#### **RESEARCH EXPERIENCE**

# 2023- Research Assistant

under Professor Jingyi Li & PhD Candidate Jiaju Ma (Stanford University)

—Pomona College, Doodle Lab

Co-author a tool to help with "disciplined drawing" – drawing practice to improve illustration skills by scaffolding the drawing process in composition, value, and color. Worked on the conceptual framing, user study design, and led the technical implementation from machine learning algorithms for color clustering and contour extraction to textual feedback using Python, OpenCV, & Flask.

#### 2023- Research Assistant

under Professors Alexandra Papoutsaki & Daniel Epstein (University of California, Irvine)

—Computing Research Association and Pomona College HCI Lab

First-authored a framework on temporal reflection in personal informatics. Conducted 20 in-depth interviews and led qualitative coding. Extended study with quantitative analysis of longitudinal app usage.

#### 2022-24 Research Assistant

under Professor Anthony Clark

—Pomona College, Autonomous Robotics Complex Systems

Co-authored a data collection pipeline in simulation that aimed to improve the adaptability of autonomous robots using Unreal Engine and Pytorch.

#### 2023-24 Research Assistant

under Professor Angelina Chin

—Pomona College, History Department

Co-host and presented at the symposium "History of Assistive Technologies". Awarded the Rockoff Foundation Research Fellowship.

#### **AWARDS AND GRANTS**

- 2025 TUIST Best Paper
- 2025 UIST Travel Conference Scholarship
- 2025 TACM CHI Best Paper Honorable Mention
- 2024 Best Insights Main Prize at UCLA Datafest
- 2023 Google Product Inclusive & Equity Summit Winner
- 2023 Google Conference Scholarship
- 2023 Rockoff Foundation Research Fellowship on Assistive Robots Research
- 2023 Computing Research Association (CRA) Mentorship Program Scholar
- 2022 Pomona College Scholar (awarded to students with high GPA)
- 2022 Pomona International Scholarship (highest scholarship covering the undergraduate program's full cost)
- 2021 International Youth Math Challenge Silver Medal

#### **INDUSTRY EXPERIENCE**

#### 2025 Software Engineering Intern

#### Microsoft

At Direct<sub>3</sub>D's Graphics team, pioneered one of the first GPU workloads leveraging shader execution reordering. Developed a stylized raytracing sample in C++ and HLSL that improved frame rates by up to 60%. Designed specialized ray divergence patterns to shape functional fixes with **NVIDIA**, **AMD**, **and Intel** engineering teams. Published the sample guiding developers worldwide to adopt SER for next-generation graphics applications.

# 2025 **Software Engineering Intern**

# **FPT Corporation**

Developed the notification feature's interface for a large-scale management portal product with daily traffic of 7,000 users using Python (Django) and ReactJS.

#### **TEACHING & SERVICE**

# **Teaching Assistant**

- 2024 CS 062 Spring 2024: Data Structures and Algorithms
- 2023 CS 054 Fall 2023: Functional Programming and Discrete Mathematics

CS 051A - Spring 2023: Introduction to Computer Science with Topics in Artificial Intelligence

# **Teaching Volunteer**

Volunteered to mentor high school students through the Pomona College Academy for Youth Success (PAYS), a program that enrolls over 90 local students from backgrounds traditionally underrepresented in higher education. Led lessons on HCI research methods, concepts, interview techniques, and thematic analysis.

#### **LEADERSHIP**

# 2021-23 Co-founder, Technical Program Manager

# VieSign - The first Vietnamese Sign Language learning platform

Directed engineering team to create the website using MERN stack, featuring the first and only VSL learning resource database with 3,000+ resources, improving communication between Deaf patients and doctors in hospitals and communities across Vietnam. Recognized as the youngest co-founder leading strategies to secure partners including the European Union.

## 2023-24 Software Developer Lead

# **Associated Students of Pomona College**

Led team to develope and maintain a Ruby on Rails website to manage course schedules, ratings, and voting systems for Pomona students, serving a user base of 2,500 daily active users.

#### **SKILLS**

Programming: Java; Python; C++; JavaScript; HTML; CSS; Haskell; SQL

Frameworks: Web (ReactJS, NodeJS, MongoDB, Flask, Django); Arduino; XR (Unity); Postgres; Git

Design: Qualitative Research; Thematic analysis; Surveys; Interviews; Prototyping (Figma)