

# Katherine Emma Liang

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832-680-8704

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## EDUCATION

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**The University of Texas at Austin**, Austin, TX (Upper division classes GPA 3.38) Expected Dec 2024

Bachelor of Science, Computer Science

*Relevant courses: Introduction to Java Programming, Data Structures, Computer Organization and Architecture, Operating Systems, Algorithm*

Bachelor of Science and Arts, Mathematics

*Relevant courses: Linear Algebra, Discrete Math, Number Theory, Real Analysis, Differential Equations with Linear Algebra, Introduction to Algebraic Structures, Advanced Calculus for Application II*

Bachelor of Arts, Japanese

Scholarships: Longhorn Pre-College Academy Scholarship, AD Osherman Scholarship, TADC Scholarship.

## WORK EXPERIENCES

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**Yale University**, *Research Assistant* for Dr. Woo-kyoung Ahn

July 2023 – September 2023

- Collaborates with Dr. Woo-kyoung Ahn at Yale University and Dr. Raymond Mooney at the University of Texas at Austin to investigate the performance of contemporary Large Language Models (e.g. ChatGPT) on diverse standard cognitive tests, targeting areas highlighting human reasoning limitations.
- Designs and executes computational experiments, employing advanced programming skills to analyze and interpret research data effectively.
- Explores research articles in the fields of psychological and cognitive science, as well as relevant contributions in computer science and cognitive science journals.
- Contributes to the development and implementation of experimental protocols to assess the cognitive capabilities of current Large Language Models.

**UC Davis School of Veterinary Medicine**, *Research Assistant* for Dr. Krystle Reagan

January 2024 – Current

- Engaged in groundbreaking research under the mentorship of Dr. Reagan, a leading authority in Feline Infectious Peritonitis (FIP) at the nation's top veterinary school. This experience has sharpened my proficiency in applying computer science principles to address real-world challenges in veterinary medicine.
- Using the application of computer science methodologies to analyze and interpret massive datasets related to FIP symptoms in cats.
- Actively contributing to a pioneering research initiative aimed at discovering a treatment for FIP, a lethal disease affecting cats worldwide.
- Utilizing advanced knowledge in computer science to analyze and interpret FIP symptoms in cats, with the goal of identifying potential treatment strategies.

**The University of Texas at Austin**, *Teaching Assistant* for Elements for Computers and Programming

Spring 2023 – Current

- Grades (weekly) homework, code labs, learning checks, and exams for approximately 600 students in 3 sections.
- Holds 4.5 hours of office hours per week (either in-person or on Zoom), teaches Python for two sections
- Offers support and guidance to create a positive learning environment, hosts review sessions around exam days

## SKILLS AND ABILITIES

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**Skills:** Proficient in Java, Python, C, and source control like GitHub. Effectively uses industry standard IDEs such as Visual Studio Code and Eclipse to compile programs. Possesses basic Linux experience, debugging with GDB, and web programming.

**Language Abilities:** Bilingual in English and Mandarin Chinese. Professional working proficiency in Japanese

## LEADERSHIP EXPERIENCE

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**Electronic Game Developers Society (The University of Texas at Austin)**, *Industry Officer* 2021-Current

- Actively communicate with industry game developers to invite them as guest speakers.
- Ensure the selection of speakers who bring diverse perspectives and valuable insights to our members.