

Tse-Kai (Kevin) Chan

tsekaichan@gmail.com | [linkedin.com/in/tsekaichan](https://www.linkedin.com/in/tsekaichan) | tsekaichan.com

EDUCATION

University of California, San Diego

San Diego, CA

B.S. in Computer Science, Regents Scholar, GPA: 3.99/4.0

Sep 2022 – 2025

- **Selected Awards:** Regents Scholarship, USA Computing Olympiad - Platinum Division, Provost Honors
- **Organizations:** Director of Events at ACM AI, ICPC Team, Scholars Society, SU Lab, Qualcomm Institute
- **Selected Courses:** CS: Data Structures, Algorithms, Software Engineering, Database, Operating System, Computer Security; AI/CG: Statistical Methods, Machine Learning, Deep Learning, Computer Vision I/II, ML for Music/Audio, Computer Graphics, 3D User Interaction, 3D Asset Design, Deep Learning for 3D Data (Graduate), ML for Robotics (Graduate)

PUBLICATION

1. Stone Tao, Arth Shuka, **Tse-kai Chan**, Hao Su. *Reverse Forward Curriculum Learning for Extreme Sample and Demonstration Efficiency in RL*. International Conference on Learning Representations (ICLR) 2024. [[Paper](#), [Website](#)]

EXPERIENCE

Research and Development Intern | *Python, PyTorch, Unreal Engine, Kubernetes, Docker* *Qualcomm Institute (Calit2)*

Apr 2023 –

San Diego, CA

- Co-developed interactive 3D avatars of historical figures in Unreal Engine 5, driven by large language models and text-to-speech/animation pipeline. Implemented a multi-speaker tracking module to drive a virtual avatar's attention and face/body motion in multiplayer VR or through webcam using Google Mediapipe.
- Developed a real-time audio-to-face pipeline that receives audio input from text-to-speech and uses NVIDIA Audio2Face through Rest API to animate facial movements on a 3D avatar.
- Researching holistic multi-modal context co-speech gesture generation for animation and game engines.

AI Research Intern | *Python, PyTorch, JAX, Gymnasium, Docker, Kubernetes* *Advisor: Prof. Hao Su*

Jun – Sep 2023, May 2024 –

San Diego, CA

- Researched demo-guided deep reinforcement learning methods to effectively solve long-horizon, sparse tasks.
- Benchmarked various state-of-the-art demonstration-guided deep RL methods, including RLPD, IQL, etc., on ManiSkill2, D4RL, and Meta-World tasks. Performed experiments on Kubernetes cluster using Docker.
- Implementing RL baselines for the ManiSkill3 robotics environment.

Instructional Assistant | *Python, PyTorch, scikit-learn*

Jan 2024 – Mar 2024

UC San Diego Department of Computer Science and Engineering

San Diego, CA

- CSE 152A: Taught Computer Vision and Deep Learning concepts for a class of 150+ students and assisted 20+ students weekly with programming assignments in office hours.

Software Engineer Intern | *Kotlin, Android Studio* *Nearal*

Mar 2022 – Jun 2022

San Jose, CA

- Developed various features for Nearal's Android application, including a dynamic onboarding screen, a floating login interface, and an improved sign-up process, using Kotlin and Android Studio.
- Refined multiple app fragments, ensuring optimal functionality for both logged-in and logged-out users, and resolved critical issues such as photo display inconsistencies and profile identification.

LEADERSHIP

AI Board - Director of Events

May 2023 – Present

AI Community in the Association for Computing Machinery (ACM) at UCSD

San Diego, CA

- Leading ACM AI's Events and Social teams in designing technical and social events for a 1,000+ member Artificial Intelligence student organization.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, C#, Kotlin, JavaScript, HTML/CSS, SQL, LaTeX

Developer Tools: Git, Docker, Kubernetes, ZBrush, Unity, Unreal Engine 5, Nvidia Audio2Face

Libraries: PyTorch, Tensorflow, OpenCV, Gymnasium, OpenGL, LMDB