Teaching and mentoring are core to my academic identity, shaped by years of experience across diverse settings. My teaching philosophy emphasizes inclusivity, accessibility, and fostering intellectual curiosity. I have demonstrated versatility in adapting to various educational contexts, from academic courses to public and professional forums. Mentorship has been a central focus of my career, enabling me to guide and support students from diverse backgrounds at different stages of their education. Through personalized guidance, I have helped students achieve academic milestones, develop research expertise, and pursue their career aspirations. I am committed to building a lab environment that serves as a safe space for exploration, growth, and collaboration.

Teaching Experience

My teaching experiences reflect my versatility in adapting to various educational contexts, ranging from academic courses to public and professional forums.

In academic classrooms. I served as a teaching assistant for a graduate-level *Introduction to ML* course at Seoul National University (SNU), where my responsibilities included grading assignments, holding office hours, and providing individualized support to students. Additionally, I enhanced my pedagogical skills by completing a teaching course at UNC Chapel Hill, which focused on effective teaching methods, oral communication, and academic writing. This training equipped me to deliver engaging instruction.

Beyond academic classrooms. I have delivered lectures tailored to diverse audiences, covering both my research and broader topics in machine learning (ML), natural language processing (NLP), and multimodal machine learning. These include specialized talks for research labs and seminar groups at institutions such as UNC, Korea University, UNIST, and Chung-Ang University, as well as department-level presentations at SNU, KAIST, POSTECH, and Korea University. I have also addressed broader audiences through invited talks at companies like Naver and Kakao and participated in community outreach by presenting at the TensorFlow KR conference, Korea's largest AI developer community gathering. Furthermore, I designed and conducted an intensive ML and NLP course at FastCampus, a leading bootcamp in Korea. This course, tailored to a wide-ranging audience from non-developers to senior executives, combined theoretical lectures with hands-on programming exercises. This experience honed my ability to communicate complex concepts effectively to diverse learners.

Mentoring Experience

Mentorship has been a cornerstone of my academic career, allowing me to guide and support students from diverse backgrounds and at various stages of their education. Through individualized guidance, I have helped students achieve academic milestones, develop research skills, and pursue their career goals.

Advising students. I have guided over 10 students from various stages and backgrounds—ranging from undergraduates to junior Ph.D. researchers, from beginners in research to those with publication records, and from those pursuing academia to those targeting industry careers.

Many of these students achieved significant milestones. For example, I worked closely with Abhay Zala, who co-authored seven papers with me, including DALL-Eval (ICCV 2023), HiREST (CVPR 2023), and EnvGen (COLM 2024) before joining HeyGen to extend his research into real-world applications. Another undergraduate mentee, Zineng Tang, co-authored four papers, including VidLanKD (NeurIPS 2022) and TVLT (NeurIPS 2023 Oral). Zineng was recognized with the prestigious 2023 CRA Undergraduate Research Award and is now pursuing a Ph.D. at UC Berkeley.

My mentoring approach is tailored to each student's experience level. For those leading their first projects, I provide hands-on guidance on choosing topics, reading literature, tackling technical challenges, and managing project timelines. For more experienced students, I offer higher-level feedback to help them become independent researchers and develop long-term visions for their careers. Zineng Tang, in a reflective piece about his experience working with me, expressed appreciation for my guidance on research direction, experimentation, and logistics (see Appendix A for the full text).

Commitments to Teaching and Advising

Courses. I am prepared to teach both undergraduate and graduate courses in machine learning/artificial intelligence, natural language processing, and multimodal machine learning. I am also eager to design courses that reflect the institution's needs and the latest advancements in the field, including new offerings on multimodal machine learning.

Teaching methods: balancing theory and application in a flipped, role-playing classroom. In my teaching, I aim to create an integrative learning experience that combines foundational theories with practical applications, enabling students to develop both conceptual understanding and hands-on programming skills. I believe the best way to learn is by teaching others. To support this, I plan to implement a flipped classroom model with role-playing elements, where students engage with materials before class and actively present to their peers during sessions. This method, inspired by my own experiences in flipped role-playing classes during my Ph.D., fosters deeper understanding and collaboration.

Fostering an inclusive educational environment. Having grown up in a rural city in South Korea without familial ties to STEM, Ph.D. programs, or academia, I understand the challenges of navigating academia's hidden curriculum – the unspoken norms and expectations that often determine success. Concepts such as the importance of internships, side projects, and office hours are not always accessible to first-generation or underrepresented students. I am committed to making these norms explicit by providing transparent grading rubrics, holding open office hours for both academic and career guidance, and mentoring students from diverse backgrounds to ensure they feel supported and empowered.

Creating a safe space for exploration, growth, and collaboration. Mistakes are essential to learning, especially in research-driven fields. In my lab, I will foster a culture where challenges are met with curiosity and resilience, and failure is viewed as a stepping stone rather than a setback. This approach builds confidence, creativity, and a growth mindset. I will also encourage collaboration by facilitating peer support and co-working. Reflecting on my Ph.D., having a research buddy to discuss ideas and troubleshoot was key to sustaining momentum and driving projects to success. I aim to replicate and expand this collaborative spirit in my lab.

Appendix

Below, I include a mentorship experience shared by Zineng Tang, my previous mentee who I worked with when he was an undergraduate student at UNC Chapel Hill. Zineng is now a PhD student at UC Berkeley and offered to write a throwback of his working experience with me when I told him I was applying to academic positions.

A Mentorship Experience Shared by Zineng Tang

As an undergraduate student, having Jaemin Cho as my mentor has a profound impact on my academic journey. He is sincere and dedicated. He would spend hours a week guiding me through logistics, low level details and high level research direction. He helped me develop good academic habits and ability that is important to my success in PhD.

Jaemin has a deep understanding of both high-level concepts and low level details of our research. He was well-versed in the latest developments in the field and would regularly share relevant literature with me. In one of our projects focusing on vision-language models based on the perceiver architecture, he provided concrete ideas for meaningful ablation studies. He guided me on which components of the model to modify and analyze, helping me understand how to design experiments that best prove the capability of our proposed model. I remember when he approached me with an innovative idea that built upon our previous work with noisy captions. He noticed emerging research on modeling speech without textual transcriptions and proposed that we explore this "textless" speech modeling in a multimodal context. His insight was that, instead of relying on potentially inaccurate automatic

speech recognition (ASR) captions, we could directly train our models on raw speech data. This idea was exciting for us and led to a project where we developed a novel approach integrating speech and visual data without textual intermediaries and eventually had a publication in NeurIPS selected as oral.

He ensured we synced up regularly, often meeting weekly to discuss my progress and plan the next steps. Jaemin was exceptionally well-equipped with the responsibility of guiding me through every stage of my projects. For instance, when we were approaching a major conference deadline, he helped me create a detailed timeline that included specific milestones for experiment completion, data analysis, and drafting different sections of the paper. He also helped me with verbal presentations that helped me to articulate my talks. He showed me how to craft clear and informative figures, such as model architecture diagrams. I recall one instance where we spent hours refining a figure that depicted our model's architecture—it was tedious, but the end result was a clear and concise illustration that became a centerpiece of our publication.