Teaching Statement

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1 Classroom Teaching Experience

As a PhD student at CUHK, I served as a Teaching Assistant for five semesters across core undergraduate courses, including Data Structures, Principles of Programming Languages, and Digital Systems. In this role, I taught tutorials, designed assignments and exam questions, and managed the online discussion platform. My commitment to student learning was reflected in consistently high course evaluation ratings, and I was honored with our department's Best Teaching Assistant Award twice.

A notable highlight was my contribution to a new elite stream for a Data Structures course, designed for top-performing undergraduate students. I took the initiative to create lecture materials on dynamic programming, developing detailed, step-by-step examples to clarify this complex topic. The instructor praised the quality of these materials, which have been adopted in subsequent semesters. I also designed more rigorous programming assignments and exam questions to challenge these advanced students and deepen their understanding.

After joining the University of Macau, I have continued to develop my instructional skills by delivering guest lectures for both undergraduate and graduate courses on specialized topics, including Deep Learning for NLP, Evaluation Metrics for NLG, and NLP for Autonomous Driving.

2 Student Mentoring Experience

I am deeply committed to mentoring students and guiding them through the research process. My approach is to provide a structured yet adaptable framework that cultivates both rigorous methodology and creative independence.

Foundational guidance. At the University of Macau, I mentored two master's students who were new to academic research. To help them develop systematic research habits, I implemented a shared Google document to track progress, define problems, and outline experiments. This process not only kept them organized but also built a clear foundation that we later expanded into their manuscripts. As a result, both students published their first research papers at top-tier conferences (EMNLP and IROS).

Adaptive mentorship. As a postdoctoral researcher at UIUC, I mentored three junior PhD students from diverse backgrounds. This experience taught me to adapt my mentoring style, providing more direct guidance when needed while giving students with strong opinions and experiences the room to explore and mature as independent researchers. Recognizing that research can be challenging, I also prioritized providing empathetic and emotional support. All three students published first-authored papers at the ACL conference during our collaboration.

Research mentorship in industry. This commitment to mentorship has continued in my industry role at Alibaba DAMO Academy, where I have guided a research intern and a joint Ph.D. student on projects concerning the factuality of LLMs. These collaborations have resulted in publications at ACL and EMNLP. Beyond publications, I mentored them in contributing to large-scale, open-source industry projects, including the Lingshu Medical MLLM and SeaLLM v3. This provided them with hands-on experience developing real-world open-sourced LLMs.

Competition advising. I also advised a team of undergraduate and Master's students in the Shenzhen Open Data Innovation Competition. For this practical challenge, my guidance focused on practical data engineering pipelines, from collection and synthesis to filtering and post-processing. Our team developed a Chinese legal question-answering system and achieved 5th place out of 274 participating teams.

3 Teaching Philosophy

Exemplar-based learning. When preparing the materials for a tutorial or lecture, I always look for **concrete walkthrough examples to illustrate the idea of an algorithm**. These walkthroughs provide a step-by-step breakdown of the algorithm's execution, allowing students to follow along and gain a deeper understanding of the underlying principles. Moreover, by incorporating real-world scenarios into these examples, I can also demonstrate the algorithm's relevance and potential applications, making the learning experience more engaging. For example, when preparing the lecture slides for the topic of dynamic programming (DP), I drew a walkthrough example that illustrates how DP can be used to solve the coin changing problem. This particular example has received praise from many students. This principle also applies to my research talks, which usually contain walkthrough examples to illustrate my proposed methods.

Collaborative learning. Consistently seeking feedback from students can help teachers understand which concepts students do not understand well. Therefore, I always **reserve a time slot for students to ask questions and give feedback during my tutorials and lectures**. This enables me to identify the specific areas where students face difficulties and allows me to refine my teaching materials accordingly. For students who are too shy to express their confusion in the classroom, I actively encourage them to utilize discussion platforms such as Piazza to ask questions. To ensure that all students can benefit from the questions and subsequent discussions, I emphasize to my students that questions posted on the discussion platform will receive higher priority than those sent to my email.

This same principle extends to my approach to mentoring students on their research projects. I maintain a tight feedback loop with my mentees to ensure timely responses and adjustments to research directions. This approach not only supports the progression of a student's research project but also helps to sustain their momentum.

Hands-on learning. As students often learn passively during lectures, it is crucial to craft challenging programming questions for students to foster active and profound comprehension of the lecture's content. This approach not only enhances their critical thinking skills but also sharpens their problem-solving abilities. During my time as a TA for a data structure course, I actively participated in the formulation of questions for programming examinations, which assessed students' proficiency in applying the data structures and algorithms they had learned in the lectures to novel scenarios. **Many students mentioned that our questions are exciting and help them gain a deeper understanding of data structure concepts.**

4 Teaching Interests

I am prepared and enthusiastic to teach a range of undergraduate courses, including Data Structures and Algorithms, Introduction to Programming, Software Engineering, Information Retrieval, Natural Language Processing, Machine Learning, Data Mining, and Artificial Intelligence. At the graduate level, I look forward to teaching advanced courses in Natural Language Processing. I would also be thrilled to develop and lead a new research-oriented seminar on Trustworthy LLMs, with a special focus on the safety of LLMs and agents. I look forward to contributing to your department's curriculum and mentoring the next generation of researchers and innovators.