Teaching Philosophy and Experience

Cultivating Future Computer Scientists

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Introduction

With a strong foundation in computer science fundamentals and a passion for effective teaching, I am confident in my ability to contribute significantly to the department's mission of educating future leaders in the field.

Teaching Philosophy

My teaching philosophy centers on creating an inclusive and stimulating learning environment where students are encouraged to think critically, solve problems creatively, and develop a lifelong passion for computer science. I believe that effective teaching involves a combination of theoretical knowledge and practical application, and I strive to foster a balance between these two components in my courses. By utilizing a variety of teaching methods, including lectures, hands-on projects, and interactive discussions, I aim to cater to diverse learning styles and maximize student engagement.

Teaching Experience

I have a robust teaching experience spanning 4.3 years as a computer science assistant lecturer, coupled with teaching assistant roles during my PhD at the National University of Singapore. This experience has equipped me with a deep understanding of undergraduate student needs and challenges. My teaching portfolio encompasses a broad range of core computer science subjects, including programming languages (C, C++, Java, Python), software development principles (object-oriented programming, design patterns, data structures, compilers, software engineering, automation testing), and machine learning techniques (supervised, unsupervised, and semi-supervised learning classifiers, neural networks, LLMs).

Alignment with Position

My teaching expertise aligns strongly with the department's focus on information security, software engineering, and high-performance computing. I am particularly interested in developing innovative courses that bridge the gap between theoretical security concepts and practical implementation, enabling students to become proficient in addressing real-world security challenges. My background in machine learning also positions me to explore the integration of AI and security in the curriculum.

Commitment to Student Success

I am dedicated to fostering a supportive learning environment where students feel empowered to reach their full potential. I believe in the importance of mentorship and strive to build strong relationships with my students to guide their academic and professional development. I am committed to staying at the forefront of computer science advancements and incorporating these into my teaching to ensure that my students are well-prepared for the dynamic and evolving technological landscape.

Conclusion

I am eager to contribute my expertise and passion for teaching to a faculty position at a leading institution. I am confident in my ability to deliver engaging and effective courses that inspire student learning and prepare graduates to excel in the dynamic field of computer science. I am particularly interested in opportunities to contribute to curriculum development, research, and service, and I look forward to collaborating with colleagues to create a vibrant and intellectually stimulating learning environment.

By joining your department, I aim to leverage my teaching experience, research interests, and commitment to student success to make a meaningful impact on the academic community.