

Teaching Statement

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Teaching Philosophy

I believe that you truly understand something only when you are capable of explaining it to others, of extracting the fundamental concepts and presenting it in multiple ways, relating it to other concepts, so that they can be understood by other people. I often go through this process in order to achieve a better understanding of a subject. It is from here that sparks my interest in teaching, as a step to go full-circle in the learning process and the development of knowledge.

As a speaker and student, I have found the main factor in motivating the audience to be the motivation of the speaker himself. As a teacher, I look forward to transmit the same love and appreciation to the subjects that was infused into me by my teachers, help them realize the importance of the topics they are studying in the real world, and the excitement that can be derived from their study.

Although I understand the advantages of slides and multimedia aids in the classroom, I am an advocate of whiteboard lectures as a mechanism to improve student participation and make them part of the process of discovering knowledge as opposed to sitting inertly absorbing a long presentation of facts. The whiteboard is a powerful tool that provides multiple opportunities to encourage students to contribute ideas or questions, and to make them feel more involved. In general, beyond a particular media, I favor a “learning by doing” approach.

Experience

At the University of Maryland I was a teaching assistant for the classes Introduction to Computer Science and Introduction to Algorithms. My duties included holding office hours, and grading assignments, projects, and exams. I have also tutored students at the high-school level in algebra and physics. These experiences taught me to work with the students in leading them to the answers and transmitting them the confidence they need to solve problems on their own. I have also improved my skills through several presentations in conferences and seminars.

Future Teaching Plans

I would feel comfortable teaching basic computer science classes such as Introduction to Programming Languages, Algorithms, Formal Logic and undergraduate classes on Artificial Intelligence and Machine Learning. I look forward to teach graduate level courses on Artificial Life, exploring the connection between AI and biology, and Swarm Intelligence with

its current applications in the simulation of large groups of individuals. I would also like to teach classes on genetic algorithms and neural networks, taking into account both their foundations and applications.