## STATEMENT OF TEACHING George Tzanetakis

Teaching is very important to me and is one of the main reasons I have chosen to follow an academic career. For me the most important role of a teacher is to trasmit their motivation, enthusiasm and passion for the subject being taught. In addition, I believe that the constant effort to explain and clarify difficult topics helps not only the students but also the teacher to understand a topic in depth.

While I was an undergraduate I taught saxophone and music theory to beginners with ages ranging from 7 to 35 years old. This experience made me aware of the difficulty and challenge of teaching effectively. It also helped me to realize how each student has different teaching needs and the importance of the teacher-student relationship. Although I know that it is impossible to make your teaching style appropriate for every student in a classroom I believe that one can approximate this goal by individualized support, project assignments and advice.

During my last year as an undergraduate in Computer Science at the University of Crete, Greece, I volunteered to be a teaching assistant for a second year course in programming in C, Assembly and Unix. While a graduate student at Princeton I have been a teaching assistant for four semesters (one of which I volunteered). The first course for which I was teaching assistant was CS-126 General Computer Science, taught by Professor Robert Sedgewick. For me the main challenge and learning experience lesson of this work was the wide diversity of the student programming backgrounds. For two semesters, I was teaching assistant for CS-217 Introduction to Programming Systems taught by professors Perry Cook, and Jaswinder Singh. This course helped me learn to locate quickly and fix various common programming errors and teach effective programming techniques to avoid them. Most recently, I was teaching assistant for CS-333 Advanced Programming Techniques taught by visiting professor Andrew Koening from AT&T Research. The main things that I will remember from this course was the love of programming that Prof. Koening inspired in the students and the high quality and diversity of the final programming projects.

For my academic teaching, I believe I have the knowledge and experience to teach courses in Programming, Signal Processing, Computer Audition, Computer Vision, Graphical User Interfaces, Computer Music, and Machine Learning. In addition, although I am not as experienced with these areas, I would also be interested in teaching courses in Computer Graphics, Information Retrieval, Multimedia processing and Neural Networks. Morevoer, it is my belief that music signals because of their large popularity and distribution provide an excellent framework for motivating and teaching students about Signal Processing, Machine Learning, Human Computer Interaction, and Software Development.

One of the things that my music studies and teaching have made me realize is the importance of effective metaphors and analogies in teaching. It is my hope to bring this knowledge to my teaching. I also am a strong believer in individualized project oriented courses because they motivate students and help them learn more about the subject. In teaching Computer Science courses I have two main personal goals: demonstrate and motivate the use of applied math (especially statistics, probability and signal processing) and help develop good programming practices.

I would like to end this teaching statement, by listing some of my most inspiring teachers and what they have helped me learn about teaching: Theodoros Kerkezos, my saxophone teacher, for his contagious passion for discipline and work; Perry Cook my advisor, for his enthusiasm for research; Steve Mackey, my composition teacher, for his use of metaphors; and my elementary and high school mathematics teachers for giving me a solid foundation in mathematics. It is my hope that I could some day inspire others as they have inspired me.