Andreas Leonidas Prodromidis
Statement of Teaching Interests

Teaching is not new to me. I have had the pleasure of teaching and serving as a teaching assistant in several courses already. This experience made me realize that one of the greatest challenges in teaching is to convey the insight of a problem to students with different perceptions and diverse backgrounds. It was only then that I comprehended my father's (a University professor himself) enthusiasm about teaching. I discovered that little is more rewarding than the excitement and the spark in the students eyes when they grasp a new concept, a fact that contributed to my desire to pursue an academic career.

I had my first experience as a teaching assistant in my last year of my undergraduate studies at the National Technical University of Athens, when I TAed the Introduction to Databases course, taught by Prof. Sellis. Later, as a graduate student, I had additional opportunities. Ph.D. students at Columbia University are required to serve as teaching assistants four times with duties that include grading assignments and exams, providing solutions, holding office hours and occasionally substituting for the teacher. However, I never saw this as a requirement, but rather as part of my education, a chance to develop and exercise my teaching skills and communicate ideas effectively. This is why I decided to become a teaching assistant to a different class each time and thus expose myself to many teaching and testing techniques and to different problems and student related issues, although this meant new materials, different expectations and type of work and hence more load. I believe my enthusiasm was acknowledged by the professors in charge of the classes. At the end of his course (Artificial Intelligence) Prof. Stolfo, who was not my advisor yet, commended me for *"doing a very professional job"*, Prof. Unger (Computer Organization) thanked me for *"a job excellent done"*, Prof. Dalal (Programming Languages and Translators) praised me for being *"the best TA he ever had"*, while Prof. Tsantilas (Computability and Models of Computation) invited me to *"TA for him again"*.

To satisfy my last TA requirement, I opted for teaching the 3000 level course Programming Languages C, even though this meant significantly more time and commitment on my part. On the other hand, it was the only way to appreciate the complexity of the task and to acquire true teaching experience. I devoted considerable amount of effort to choose the textbook, design the syllabus, prepare the lectures and design new assignments and the final exam. This was the first class I ever taught, yet I received very positive evaluations and comments from the students (available upon request) including: *"I enjoyed the class very much"*, *"I learned a lot about C"*, *"The course was very good. Instructor was approachable, had very good demeanor"*, *"Andreas did a great job"*.

I look forward to teaching more courses, both graduate and undergraduate, especially in machine learning and artificial intelligence as well as in data structures, and introductory computer science. I believe that my background in systems and my broad education and experience in computer science (have passed qualifying exams both in Computer Systems and Software Systems, have satisfied the Artificial Intelligence and Theory requirements, have been a teaching assistant in very different subjects in computer science) qualify me to also teach courses in databases, information retrieval, distributed systems, programming languages, compilers, as well as automata and discrete math. Moreover, I am interested in developing an advanced course on Knowledge Discovery and Data Mining that would cover the practical problems associated with large and distributed databases and would focus on the issues and most successful approaches encountered in real practical applications (e.g. in e-commerce).

Finally, one of my reasons for applying for a faculty position is for the opportunity to teach graduate and undergraduate students to conduct research and communicate their results. I have had the chance to supervise master and undergraduate senior students and I have realized that leading a research group is a challenge by itself. Setting up a research program, motivating graduate students and providing direction, is at least as important as teaching courses. I have had several great mentors guide me over the years, and wish to do the same for others.

Overall, I consider teaching to be a vital component of an academic career. I have found teaching to be very rewarding and believe my experiences have prepared me for the task ahead.