Teaching Statement

Minas Gjoka

Philosophy

I enjoy teaching and derive satisfaction from helping others learn. I find that it is of primary importance that the teacher is enthusiastic about the subject matter in addition to having a good understanding of it. I use a combination of teaching methods to achieve the teaching objectives. Sometimes, I follow a problem-centered approach by first presenting a problem that will make the student grasp the need for a solution. Other times, I follow a top-down approach in which I start by explaining concepts in a high level and incrementally refine these concepts in more detail. When necessary, I also use a bottom-up approach in which I start by explaining basic concepts and gradually building towards more complex structures. Finally, in some cases I encourage a hands-on learning style. In my opinion, the suitability of each teaching method depends on the type of class (data structures, network layers, programming languages), the maturity (lower/upper division undergraduate or graduate level) and type of the audience (computer science, computer engineering). I always encourage student participation and make time to answer students’ questions. I also make sure to set realistic learning objectives for students.

Scope

I look forward to teaching core computer science courses at the undergraduate level, such as Computer Networks, Introduction to Operating Systems, Data Structures and Algorithms, Introduction to Probability and Statistics, and Graph Theory. I can also teach programming courses for the languages that I am familiar with, e.g. C/C++, Java, and Python. At the graduate level I am interested in teaching courses in the general area of computer networks such as Network Protocols and Algorithms, Advanced Networks, and Distributed Computing. Additionally, I plan to develop courses related to my research interests such as Social Computing and Data Mining in Massive Graphs.

Teaching Experience

I have had formal teaching roles starting from my undergraduate studies. At AUEB, I was a teaching assistant for the course “Programming Languages-Compilers” and I helped develop a programming project that aims to construct a compiler. As a PhD student at UC Irvine, I have taught as a TA and graded several undergraduate courses. More specifically, I have been a teaching assistant twice for the course “Computer Networks” and once for the course “Principles of Operating Systems”. As a teaching assistant, my main duties were as follows. I led discussion sections in which I elaborated on the lecture materials and solved homework problems. I created homework and exam problems based on the lecture notes. I held weekly office hours and maintained an online presence in a newsgroup/forum to answer students’ questions. Additionally, I have been a grader for the courses “Introduction to Computer Science”, “Introduction to Computer Organization”, and “Network Laboratory”. As a grader, my duty was to grade weekly homework problems, midterm and final exams.

Advising Experience

During my postdoc I have advised several projects with master’s and doctoral students. I advised Yan Wang during his M.Sc thesis in which he developed Geosocialmap, a web-based visualization tool that visually represents social relationships embedded in geography. This work resulted in a SIGCOMM workshop publication and is under a journal submission. Next, I guided three M.Sc. students during the prototype development of Questcrowd, a mobile question answering system with participation incentives, which resulted in a poster publication in Infocom 2013. Additionally, I co-mentored Teis Osterlund at the IT University of Copenhagen for his M.Sc. thesis on methods and heuristics for the efficient construction of dk-series network models. Finally, I am currently advising a senior PhD student of our group, Blerim Cici, on a project that performs network analysis of mobile call and social graphs.