Teaching Statement
Mohammad Jahanian

Teaching Computer Science is integral in preparing students with the knowledge and skills to solve scientific and technical CS problems in its various fields. It has always been one of my passions. My teaching experience has shown me that while I teach, I also learn, an improvement process that makes teaching even a more fulfilling activity. I have teaching experiences as teaching assistant and lab instructor during my graduate studies. I enthusiastically look forward to teaching as well as engaging in mentoring and advising of students.

Teaching Experience. I gained a great deal of experience in teaching during my PhD studies at University of California, Riverside (UCR), where I worked as teaching assistant for several undergraduate CS courses, teaching a diverse group of more than 300 students. Lab instruction, office hours, grading, and designing and suggesting assignments, projects and exams were my duties in those courses. The courses I taught could not be more different from each other: ranging from introductory courses with majority of non-CS students (CS6: Effective Use of the World Wide Web and CS8: Introduction to Computing) to higher division courses for senior CS students (CS164: Computer Networks), also from basic theoretical CS concepts (CS14: Introduction to Data Structures and Algorithms) to highly practical techniques (CS183: UNIX System Administration). It was quite a pleasant challenge to adjust myself to teach these different courses. What remained consistent was for me to make sure I always prepare thoroughly for a clear instruction and provide a positive learning environment where students can learn and challenge their knowledge. Prior to my time at UCR, I also experienced teaching assistantship for a graduate course (Data Communication) when I was a master student in Sharif University in Iran. Due to a successful teaching assistantship, I was asked to TA for that course a second time.

Teaching Philosophy. I believe teaching involves providing a high-quality lecture as well as creating a productive learning environment where students can grow and challenge themselves. Before every session, I spend a fair amount of time preparing for the class, not just reviewing the content but also coming up and rehearsing for the most effective narrative to convey that content to students. I have found this to be very important and effective, especially in that it gives them a clear view of the topic and prepares me to answer any questions they might have. I also find it important to explain the material only to a certain extent, within reason, to give students space to grow and be able to act and think independently as well. Where that balance lies depends primarily on the course subject and the seniority of the students. When it comes to answering questions, rather than giving a straight full answer, I try to give hints and try to walk the student through, so they reach the answer themselves. I believe this combination of well-prepared lectures and guided teacher-student interaction can cultivate a great learning experience for students.

Teaching Plans. I look forward to teaching a wide range of undergraduate and graduate courses. In particular, I am eager to teach courses on Computer Networks, Distributed Systems, Formal

1 I received an average of above 6 out of 7 in my teaching evaluations at UCR, with positive feedback comments.
Methods and Verification, and Data Structures and Algorithms. I believe that I have the required background to teach these courses based on my teaching and research experience. Additionally, and as for more advanced topics such as in form of seminar courses, I intend to teach a course on Future Internet Architectures, to discuss emerging networking protocols and architectures such as Information-Centric Networks. I also plan to teach a course on Network Verification, discussing new techniques of formal verification for correctness of network protocols as well as control and data planes.

Advising and Mentoring. I quite enjoy advising and mentoring students as well. When I was a master’s student in Sharif University, I mentored an undergraduate student on his final BSc project on formal protocol verification in vehicular networks. That work ended up being a successful BSc thesis, helping him to graduate. Also, recently at UCR, I have started mentoring a first year PhD student in our lab, helping him to reach the point of preparing a paper for submission. The paper got accepted into the EmMeRTeS Workshop at ICDCN’21. When it comes to mentoring and advising, I believe effective and clear communication is key. I try to provide the student with guidelines and a high-level view of the final goal and the path to reach it, but at the same time give them the flexibility to be innovative, identify interesting sub-problems to solve along the way and come up with solutions for them, based on their aptitudes and interests. I believe maintaining this balance, while it can be challenging at times, is very important and rewarding.

Diversity, Equity, and Inclusion. Throughout my studies, I observed the importance of diversity, from my own experiences as well as interactions with many wonderful people from all backgrounds. Through this process, I learned how important it is to understand, welcome, and celebrate diversity in classrooms and research. I strongly believe in the values and ideals promoted by your department, especially when it comes to supporting diversity. As a faculty member at your department, I will be fully committed to diversity in classrooms, research, and other activities. I look forward to working with students and faculty members of all backgrounds and diversities, including race, ethnicity, gender, age, religion, language, abilities/disabilities, sexual orientation, gender identity, socioeconomic status, or country of origin. I will actively seek opportunities, such as NSF funds, to support under-represented groups, such as minority and female graduate students in my field of research and advise and mentor them for their careers. I believe I can contribute to my students’ personal growth and motivate them to achieve their educational goals, and promote the ideals of your department to advance inclusion, diversity, and equity.

In sum, I am passionate about teaching and always eagerly put in the effort needed for lecture preparation and cultivating a fruitful learning experience. My experience in teaching assistantship, lab instruction, and mentoring has prepared to be an effective teacher as a faculty member. I look forward to teaching various courses, both existing courses and also courses I would like to create regarding advanced topics inspired by my research experience.