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TEACHING STATEMENT

"A teacher affects eternity; he can never tell where his influence stops." - **Henry Adams**

I feel that the ability to influence so many young minds is an important and highly motivating responsibility. Being an academician, I feel teaching and mentoring are the vital roles one should play honestly and effectively.

Teaching: To educate my students on the best-known computer science concepts, techniques and tools that are key to future studies and careers.

Mentoring: My motive is to enhance the technical skills, to develop the analytical concepts and critical thinking process in the field of computer science, particularly in algorithms.
Below, I am highlighting the principles and techniques that help me attain these goals:

- Instead of teaching my students just the textbook material, I also provide technique of how to learn practically. This is especially important in this era in which vast amount of computer science and engineering resources are available in the libraries and on the internet. I reflect from my own learning experience, elaborate on my thinking and problem solving process and give them tips for effective studying.

- Understanding just the material is not adequate. A student ought to have the capacity to present the material clarity. I let my undergrad make errors and after that demonstrate to them the correct approach to do it. I help them shape and express their thoughts.

- I am not hesitant of acknowledging if I make a mistake or do not know the answer to a question. Indeed, I encourage my students to point out my errors, which keep them alert in lectures.

- Keeping students attention in algorithm classes is often a challenge. I integrate application topics that show the relevance of the presented theory. My lectures comprise a good balance between the intuitive descriptions and logical formalism.

- I observe that students from different backgrounds especially underrepresented groups have different needs and concerns. I adapt my teaching and mentoring to accommodate such differences.

Previous Experience: I had the privilege of being a teaching assistant (TA) for Data Structure and Algorithms, Design & Analysis of Algorithms and Database Management System during my post graduate days at Thapar University. These assistantships allowed me to teach a few classes as well as play an active role in setting up assignments/exams and grading them. I have served as Assistant Professor in Department of Computer Science & Engineering, Chitkara University for more than 3 years. I have taught various courses like Data Structures, Database Management System, System Software, Programming in C and Operating System to undergraduates and Parallel Programming, Software Testing and Distributed Systems to Post graduates students. I have also served as the member of the University Board of Studies that designs and updates the computer science undergraduate and Postgraduate program.
At Chitkara University, I was instrumental in establishing the Mentorship Cell for budding engineers. The motto of the cell was ***Bringing Caring Closer***. At Chitkara University, under mentorship program each faculty member was assigned a group of 25 students (all from his/her class). The assigned mentor monitors the academic performance, provided necessary guidance and emotional support to

his/her wards and communicates all such details regularly to the authorities and parents, if required. Under mentorship program, we organized various types of professional, co-curricular, sports, cultural activities and encouraged students to participate inside and outside competitions to channelize their competencies. I had served as Coordinator of Mentorship Cell for more than 2 years.

Presently I am serving as an Assistant Professor in Department of Computer Science & Engineering at Maharaja Agrasen University. I have been teaching various courses like Fundamental of Computing, System Programming, Programming in C, Design and Analysis of Algorithms to undergraduates and Software Testing and Distributed Systems to post-graduate students. Along with teaching, I am serving as Faculty In-charge, Training and Placement. I guide to students about various industries and arrange industrial visits for my students so that they may understand the need of hour.

My office hours also allow me to interact with students individually and get their feedback on various issues. For example, I was surprised to learn that many more students than I expected actually look through class slides before the class. Given this experience, I ensured that I make my teaching slides available beforehand. Another thing I learnt the hard way is grading can be a contentious issue if the grading scheme is not made clear beforehand. And students are much happier if a detailed marking scheme is provided for each question in an exam rather than a coarse evaluation. Many such finer details which may not get discussed directly in classroom came to my notice through individual interactions.

Plan for future: My own teaching interests span a variety of topics. I am very interested in teaching undergraduate and graduate courses as well as working with graduate students in pursuing their academic objectives. I am interested in teaching undergraduate and graduate level courses on Data Structure and Algorithms, Design & Analysis of Algorithms, Database Management System, Distributed Computing, System Software, System Programming, Software Testing, Programming in C and Operating System. I believe that these mixed types of courses would be more suitable at an undergrad level since they will be able to provide practical context to otherwise theoretical subjects and potentially inspire students to pursue these subjects at an advanced level. In addition, as a passionate researcher in the field of Algorithms and Distributed Networks, I believe that it is my duty to provide get them exposure to the joys of research and help to spot and groom the future scientists.

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