

Various courses on the design of algorithms offered by Profs. Sanjiv Kapoor, Edward M. Reingold, and Charlie Steele, doctoral thesis advisory by Prof. Kapoor, collaborations with Prof. S. N. Maheshwari, masters thesis guidance by Prof. Daniels, and the below excellent textbooks, are immensely helping me offer courses and pursue designing algorithms for geometric problems.

1. Introduction to Algorithms by T. H. Cormen, C. E. Leiserson, R. L. Rivest and C. Stein.
2. Algorithm Design by J. Kleinberg and E. Tardos.
3. Introduction to Automata Theory, Languages, and Computation by J. E. Hopcroft and J. D. Ullman.
4. Introduction to the Theory of Computation by M. Sipser.
5. Randomized Algorithms by R. Motwani and P. Raghavan.
6. Combinatorial Optimization by C. H. Papadimitriou and K. Steiglitz.
7. The Design of Approximation Algorithms by D. P. Williamson and D. B. Shmoys.
8. Computational Geometry by M. de Berg, O. Cheong, M. van Kreveld and M. Overmars.
9. Computational Geometry by F. P. Preparata and I. Shamos.

1. Discrete Mathematics and its Applications by K. H. Rosen.
2. Elementary Number Theory by D. Burton.
3. Probability Theory and its Applications vol I by W. Feller.
4. Differential and Integral Calculus vol I by N. Piskunov.
5. Linear Algebra: A Modern Introduction by D. Poole.
6. Introduction to Graph Theory by D. B. West.