

Statement of Purpose

After carefully considering my aptitude, interests, the nature of my training and my ultimate professional ambition, I have decided to pursue a *Doctoral degree* in Computer Science, in my fields of interest – *Computer Graphics* and *Computational Geometry*, ultimately leading to a career in teaching and research. As a statement of purpose of my graduate study, I describe here my academic background, research interests and career goals.

I have excelled in academics at every stage of my education. In the twelve years of my schooling, I have always been ranked first or second in my class. I stood 111th out of 100,000 candidates in the highly competitive examination for admission to the undergraduate program at the Indian Institutes of Technology. In the Regional Mathematics Olympiad 1990, I was ranked 6th in my home state of Maharashtra.

The excellent undergraduate program at the Indian Institute of Technology, Bombay not only provided me with a strong foundation of Computer Science fundamentals, but also exposed me to various fields of Computer Science. I have always been interested in problems involving visualization. At IIT, this led to an inclination towards Computer Graphics and Computational Geometry. I substantiated my knowledge in these areas by choosing graduate level electives in Advanced Computer Graphics and Geometric Algorithms. I am currently working on my year long B.Tech Project (senior thesis) titled *Triangulations in 3 Dimensions*, under the guidance of Dr. Sharat Chandran. In this thesis we are looking at decompositions of polyhedra into simplices with an emphasis on obtaining well shaped tetrahedra.

I am also interested in Multimedia technology. In my third year, I presented a home paper titled *Multimedia Databases* under the guidance of Dr. S. Seshadri. In this paper, our study was focussed on issues involved in the storage and real time retrieval of multimedia objects in a multi-user environment.

My years at IIT Bombay have given me substantial teaching experience. I have delivered lectures at Workshops on Unix conducted by the department and have been a teaching assistant for an introductory course in programming. This has built in me a lot of confidence that is required to excel as a teacher.

Though my experiences in IIT Bombay have provided me with a strong foundation in my fields of interest, a good graduate program is necessary not only to increase my knowledge in these fields but to mould me into a good researcher. I am fully aware of the hard work and perseverance required for a successful career in research and I believe that I have the aptitude and drive to meet the challenge.

The Graduate program at SUNY, Stony Brook is fully suited to my goals. Graphics and Computational Geometry are strong areas of research at Stony Brook. I have found the faculty and the research work to be quite impressive. I feel that to be associated with this group would stand me in good stead throughout my research career. I have also been impressed by the computing facilities available at Stony Brook for research and education. My B.Tech Project advisor has also strongly encouraged me to apply to your program. I am confident that given the opportunity, I will be able to make significant contributions to the ongoing research at Stony Brook.

I corresponded with Prof. Arie Kaufman whose encouraging reply reinforced my decision to apply to Stony Brook.

I look forward to joining SUNY, Stony Brook as a graduate student at your esteemed department.