

Statement of Purpose

My aspiration to work at the frontiers of Scientific research leads me to apply to your university. I believe that a comprehensive knowledge and a good grasp of fundamentals are essential for such a career. I feel that Graduate studies in Computer Science in a good University like yours will help me realize this objective. Therefore I am seeking admission to the Ph.D. program at Harvard with a specialization in Computer Science. I have compelling reasons to believe that I will be extremely successful both as a Graduate student and later as a researcher.

My superlative performance in school fetched me a number of awards at the national level. I was awarded the prestigious National Talent Search Scholarship in class ten. I had developed a keen interest in science and decided to choose it as my career. I therefore, took the Joint Entrance Examination for admission to the five Indian Institute of Technologies, which are considered the best academic centers for science and Engineering in India and qualified in the top 0.3% of those who took the test.

I have always adopted a rigorous approach in order to attain an in-depth understanding of the subject at hand. This has given me a broad conceptual basis, which, I believe, is essential for my research career. My grades in the basic courses reflect my quest for fundamentals. My overall grades in my undergraduate studies have been good, but not excellent. This again reflects my approach to courses more as an introduction to concepts that need further independent study by the student, rather than as a run-up to a semester-end examination.

Over the past two years in Computer Science I have developed a special interest in **Programming Languages and Distributed & Parallel Systems**. I have been involved in research in these areas and have consistently obtained good grades in the related courses. In Spring' 95, I will be taking two Graduate level courses in these fields namely 'Distributed Databases' and 'Advanced Compilers'. I have written an article on "Distributed File Systems" with Prof. M.R. Bhujade which appeared in the September 1994 issue of **CSI (Computer Society of India) Communications**. In this article the basic concepts underlying the design and implementation aspects were discussed and contemporary systems like Locus, Andrew and Unix United were surveyed in detail.

I am currently working on "Register Allocation Algorithms" for my B.Tech thesis under the guidance of Prof. D.M.Dhamdhare. In my project we have introduced a technique of live range confinement which adapts the live range of a data item to the availability of register. Instead of splitting a live range like in a Chow-Hennessy allocator we are implementing the confinement technique. Half way through the project we have already sent part of our work for the **ACM SIGPLAN'95 Conference on Programming Language Design and Implementation** sponsored by the **Special Interest Group on Programming Languages, Association for Computing Machinery**.

I have a reason also to be confident of my abilities as a teacher. As part of a nation wide teaching program, I have taught school children subjects like

Physics, Mathematics and English for four semesters (three hours per week). This was an interesting experience which I feel would stand in good stead in the future.

I take immense pleasure in learning new concepts. This inquisitive nature of mine along-with a desire to realize my full potential drive me to pursue research. I am aware that research calls for complete dedication and commitment. I consider myself to be mature, perceptive, persistent and open to criticism

I have studied in one of the best institutes of our country and feel the need to expose myself to research in United States which is currently a world leader in Computer Science. I have chosen to pursue Graduate studies at Harvard University because the facilities at Harvard seem to foster a healthy research environment as I could gather from the brochure of your department. I believe that I possess the motivation, the intellectual ability, and the preparation to set out on this exhilarating and arduous path, to do justice to a demanding Graduate program and to make significant contributions to the ongoing work at your University.

I look forward to joining Harvard University as a Graduate student at your esteemed department.

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