There are many good departments of computer science but only a few great ones. What distinguishes the great from the merely good? I believe the difference comes down to three things.

The first hallmark of a great department is excellence in research and teaching. No department can be a world leader in all areas of computer science, but a great department is a world leader in many of them.

The second hallmark of a great department is that it takes the lead in defining how the field evolves and has the courage to invest heavily in that future.

Finally, a great department must have character —it must possess some noteworthy characteristic, some idiosyncrasy, some texture that makes it unique among its peers.

Looking through a draft of this brochure, I was reminded of what it is that makes the CS department at Cornell one of the great CS departments in the world.

For many years, we have had world-class research programs in areas such as algorithms, complexity theory, distributed systems, languages, and numerical analysis. These areas continue to flourish at Cornell, as you will see in these pages.

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Ten years ago, we realized that just as computer science had revolutionized engineering in the 20th century, it would revolutionize all academic fields in the 21st century. So, we worked with Cornell to create what is effectively a college of Computing and Information Sciences. In a very short time, this new structure has led to a university-wide explosion in interdisciplinary research organized around CS themes. Moreover, the timing of our decision to grow a first-class group in AI and machine learning couldn't have been better, because this area is crucial to such interdisciplinary work.

Finally, the unique texture of our department stems, I believe, from our collegiality. One of our enduring traditions is that the faculty gathers at noon every day to eat lunch while discussing the latest research results or barbecuing some unfortunate faculty candidate. A remarkable number of the collaborations between theoreticians and practitioners that you will find described in the pages of this brochure were sparked by lunchtime discussions at the Statler Club or a restaurant in Collegetown.

It is my privilege to chair this great department, and it is my pleasure to welcome you to the symposium to celebrate the 40th anniversary of its founding.

This brochure presents the Cornell Department of Computer Science and the symposium that celebrates its 40th anniversary. The information about the department is given in four ways:

• Description of the environment in which the Department of Computer Science operates, which has contributed in no small way to our success.

• Fourteen selected articles. Not all faculty are represented, and only a portion of our research is described. Accompanying these articles are sidelights that summarize other aspects of the department.

• Information about the department: a list of faculty, books by the faculty, and so on.

• A timeline of events, including when each tenure-track faculty member joined the department.