

Computer Science and Engineering **Majors**

as you consider graduate school, consider the
University of Notre Dame



► **About the Program**

The graduate program at the University of Notre Dame's Department of Computer Science and Engineering brings together a dynamic set of students and faculty. Our faculty are interested in a broad range of research topics. Many have won high distinctions. The department includes four IEEE fellows and an IBM fellow. Many of our new faculty have received prestigious awards such as the CAREER award from the National Science Foundation. Our graduate alumni take on leadership positions as faculty (e.g., Clemson, Georgia Institute of Technology, State University of New York - Buffalo, and the universities of Iowa, New Mexico, and South Carolina), researchers at corporations (e.g., IBM Research and Lockheed) and national labs (e.g., Oak Ridge and Sandia), and in industry (e.g., Oracle, Synopsis, Cisco, Navteq, Google, HP, Motorola, and Philips Medical).

The department prizes interdisciplinary work. Our faculty and students often collaborate on projects, working with researchers from other colleges and departments across campus, including physics, chemistry, biology, mathematics, and other departments within the College of Engineering. Our admissions policy is highly selective. All incoming students are directly admitted to our Ph.D. program and are fully funded. Our program brings together the best of two worlds — meeting the needs of the future while keeping the tradition that is Notre Dame.

► **Research Areas**

Architecture: Nano-scale and High-performance

High-performance and low-power computer architectures; design methodologies; and nano-scale computing paradigms

Computational Biology and Bioinformatics

Complex scientific problems in biology, medicine, and physics; simulation and modeling; genomics and large-scale scientific and engineering databases

Computer Vision

Image analysis; pattern recognition and classification; face recognition, iris biometrics; and medical image analysis

Data Mining and Machine Learning

Distribution-sensitive and cost-sensitive learning, social networks, medical informatics, and applications to consumer analytics, business, and finance.

Systems: Networks, Distributed Systems, and Security

Software systems engineering, service-oriented computing; sensor networks, multimedia networking; computational grids, cyberinfrastructure, scientific data repositories; applied cryptography and privacy, and cyber-physical systems

Theory: Algorithm Design and Applications

Graph theory and geometric algorithms, with applications to medicine and biology; online algorithms



To learn more about our faculty and what you could expect as a student, visit Notre Dame's Department of Computer Science and Engineering and Graduate School Web sites at <http://cse.nd.edu> and <http://graduateschool.nd.edu>

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► visit us online at <http://cse.nd.edu>