More Than a Degree

GT COMPUTING
Welcome to Georgia Tech Computing

Dear Students,

Welcome to Georgia Tech Computing, a Top 10 program in computing education and research. But GT Computing is much more than that—we are a growing, global computing community nearly 50 years in the making.

We teach, research and learn computing unlike any other program, because we are unlike any other program. We have a dedicated, world-class faculty. We have smart, tenacious and imaginative students. And we have a groundbreaking, interest-driven curriculum that allows our students to map their own course and career.

At Georgia Tech, we understand that computing is the world’s new, great science, undergirding nearly every aspect of modern life. For those of us who want to spend our professional lives in computing, this is a truly awesome realization. As a community, our collective job is to empower students to think about and apply computing to create real-world impact and make their mark on the world.

We’re also about much more than a degree. Want to get a head start on your career? Start working early through our co-op program or a professional internship. Perhaps you’re an entrepreneur looking to start your own business. Or maybe you’re ready to explore the world—we can help through one of our many international study programs. There are also dozens of student organizations, hacking competitions, student governance opportunities, undergraduate research programs—everything students need to become more than they were before arriving on campus. A lot more.

It’s my pleasure as dean to invite you to learn all you can about GT Computing. Once you do, I know you’ll want to be a part of a community whose goal is nothing less than to change the world—for the better—through computing.

Zvi Galil
John P. Imlay Jr. Dean of Computing
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Computing is About Solving Problems

More than ever before, today’s computing professionals must look beyond their workstation and apply a wide range of knowledge and experience to tackle big challenges. In other words, they are more than simply computationalists. Georgia Tech’s Bachelor of Science in Computer Science, based on the first-of-its-kind Threads curriculum, produces the kind of “symphonic thinker” needed in today’s globally competitive workforce.

The 8 Threads

**Theory**: Defining the fundamental powers and limitations of computing, the theory and mathematics that underlie all of computer science.

**Intelligence**: Designing and implementing artifacts that exhibit various levels of intelligence, as well as understanding and modeling natural cognitive agents such as humans, ants or bees.

**Information Internetworks**: Capturing, representing, organizing, transforming, managing and presenting information securely and efficiently.

**Systems and Architecture**: Creating and evaluating computer architectures, systems and languages across a variety of paradigms and approaches.

**People**: The theoretical and computational foundations for designing, building and evaluating systems that treat the human as a central component.

**Media**: Understanding and developing the technical and computational capabilities of systems in order to exploit their abilities to provide creative outlets.

**Modeling and Simulation**: Expressing, specifying, creating, understanding and exploiting computational models that represent cognitive and physical processes.

**Devices**: Creating and evaluating computational artifacts that are embedded in physical objects and interact in the physical world, typically in real time.

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### Outcome Examples

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**Direct Your Degree**

**BS in Computer Science**

**The 8 Threads**

Each thread is associated with a set of introductory and specialized courses from computing and other fields. Select at least two threads to weave together a custom computing degree reflecting your own individual interests and strengths.
Direct Your Degree
BS in Computational Media

Shaping the Future of Digital Media
Computational Media prepares you to participate in shaping the future of digital media for our society. Offered jointly by the College of Computing and the School of Literature, Media and Communication (LMC), this degree gives you two perspectives on the digital revolution.

The Computing Threads

Media: Understanding and developing the technical and computational capabilities of systems in order to exploit their abilities to provide creative outlets.

People: The theoretical and computational foundations for designing, building and evaluating systems that treat the human as a central component.

Intelligence: Designing and implementing artifacts that exhibit various levels of intelligence as well as understanding and modeling natural cognitive agents such as humans, ants or bees.

The LMC Threads

Interaction Design and Experimental Media: Building and critically analyzing interactive systems for commerce, education, entertainment, social media and personal expression.

Film, Performance, and Media Studies: Studying the history and creating new forms of cinema, electronic media and performance art.

Narrative Studies: Studying the history of storytelling and creating new story structures for enhanced television, interactive film, videogames and mobile devices.

Games Studies: Building and critically analyzing the broad and growing variety of videogame genres—everything from mainstream role-playing games to casual games, independent games, serious games and art games.

Combining the Threads | 12 Possible Pairs
Your CM degree is crafted by selecting two course concentrations called threads, one from Computing and one from Literature, Media and Communication. There are 12 possible pairs in all (see above), and each will give you a unique focus for particular sets of careers.
Optimize Your Career

Co-ops & Internships

Jump Start Your Career

As more and more students realize the opportunities a computing degree will provide them, competition for the best jobs will only get more intense. How to differentiate yourself? Opportunities abound at Georgia Tech to jump-start your career long before you graduate. After all, who looks better to an employer: A smart, talented and hard-working computing graduate—or that same smart, talented and hard-working graduate with a proven work history?

Co-ops

The Georgia Tech Undergrad Co-op Program is an academic program that complements your formal education with paid, practical work experience that’s directly related to your major. Co-ops alternate between semesters of on-campus study and semesters of full-time employment until your senior year, when you focus fully on school. Co-ops are classified as full-time students during each term, whether you are attending classes or working off campus.

Computing students who participate in the co-op program make an average of $15-$20 an hour (starting salary), with a cost-of-living raise each semester that they work for their company. You will work with the same company during all your co-op semesters, which means you’ll have the opportunity to grow your responsibilities and position within the company, which often leads to a full-time offer upon graduation.

Internships

Internships allow you to work one or more semesters with several different companies. Multiple internships will provide you with experience in a variety of positions with different companies to help you find a career option that truly fits you.

Career Development Services

The College of Computing offers personalized career development programming and advisement in addition to campus-wide career services offered through the Center for Career Discovery and Development. Examples of these services include: threads and career decision making, resume critiques, cover letter preparation, finding employment opportunities, interviewing strategies, assessing job offers, navigating career fairs, networking and salary negotiations.
Hone Your Lab Skills

Wherever and however you plan to apply your computing skills, you’re almost certain to confront a research problem. At Georgia Tech, we have multiple research options for undergraduates to hone their lab skills. You’ll give yourself valuable experience that will help your career—especially if you’re considering an advanced computing degree.

Undergraduate Research

Georgia Tech’s Research Option is a special undergraduate program for students who want to develop the research skills and experience that will make a grad school or job application really stand out. The Research Option also facilitates relationships between faculty and grad students and allows you to learn in depth about a research area. Students pair up with faculty mentors for a semester or more and do research, either for pay or for academic credit.

Recent Projects By Computing Students:
- Network operations and Internet security
- Super-fast code for emerging parallel architectures
- Human-computer interaction pediatric research
- Computer game AI and storytelling
- Ubiquitous computing in the home and for health
- Information visualization
- GPU programming and architecture
- Artificial intelligence programming and user interface design

U ... ROC! (really)

The College also has its own Undergraduate Research Opportunities in Computing (UROC) program that matches up students with research jobs while providing a forum for students to show off their research accomplishments. UROC holds job fairs every semester, and each spring the UROC Symposium consists of a poster session to showcase undergraduate work. Faculty judges vote on the best projects, and winners receive cash prizes!
Join Our Community

GT Computing is about more than just classes and degrees—a lot more. We are a global computing community, and our members range from middle-schoolers enrolled in summer computing camps to some of the country’s top CEOs, along with everyone in between. While you’re at Georgia Tech, we want you to take advantage of all the benefits of this community—things like enhancing your extracurricular life, building your network of professional contacts and learning from your fellow community members.

Student Organizations

Student organizations provide academic, professional and social support and development. Within these organizations you begin to build people networks that will last a lifetime, as well as hone your leadership skills as you take on more active roles in the organizations. The College of Computing is proud to sponsor more than two dozen student organizations spanning a range of activities and interests.

Social Media

Yeah, we know: Every company down to the corner lemonade stand has a Facebook page. But at GT Computing, we try to use our social media channels to give you what you need—not just what we want you to have. We put the social in social media. Whether it’s posting vintage photos, holding giveaway contests or simply cracking a joke, we provide our fans and followers a reason to include us in their feed.

facebook.com/gtcomputing
@gtcomputing

Mentorship

Each freshman student will be paired with an upperclassman to help them with the transition into their first year of college. Students will be invited to attend monthly events with their mentors as they acclimate to the social and academic environment in the College of Computing at Georgia Tech.
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SOUND INTERESTING?

CC.GATECH.EDU/ENGAGE

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CC.GATECH.EDU/FUTURE/INTERNATIONAL

The GT Computing Community

More Than a Degree

Think Global

Today’s graduates must be comfortable working with globally diverse colleagues in work environments that often span multiple continents. The best—and definitely the most fun—way to prepare is to experience other cultures first-hand. Georgia Tech has dozens of options for international study, and the College has several that are specific to computing students.

Become Globally Diverse

Study Abroad

Among the destinations offered by Georgia Tech’s Office of International Education, the College of Computing offers two computing-specific study abroad programs for undergraduates. You can spend a summer in Spain or a semester/summer in France. Classes are taught in English by College of Computing faculty, and most financial aid and scholarships (including HOPE) apply.

International Study

International Plan

The International Plan is a four-year program experience that provides students a deeper global competency than traditional international opportunities. Students engage in a minimum of 26 weeks of international experience (work, research or study) related to their discipline, and the successful completion of the program results in a special “International Plan” designation on the degree and transcript.

FEATURED DESTINATIONS

- **Barcelona, Spain**
  - Select from seven courses in Architecture, Computer Science, Urban Design and Spanish
  - Travel to other European cities during two one-week breaks - a few hours away (by plane or train) from Italy, France, the UK, and more

- **Metz, France**
  - Classes four days a week
  - Located in the heart of France with easy train access to Paris, London, Germany and Switzerland during three-day weekends

- **Copenhagen, Denmark**
  - Digital media and design courses at our newest exchange program with the IT University of Copenhagen (ITU) in Denmark. One semester of study
  - Sponsored by the School of Literature, Media and Communications

- **Gorizia, Italy**
  - Learn the fundamentals of documentary filmmaking in our Italian Film Studies Program at the Film Studies Department of the University of Udine in Gorizia, Italy
  - Only a two-hour train ride from Venice. Six weeks of study
  - Sponsored by the School of Literature, Media and Communications

- **Shanghai, China**
  - Select from eight courses in Engineering, Computer Science, Math, History and Liberal Arts, with non-credit courses available in Chinese language & culture
  - Eight-week program conducted in collaboration with two Chinese universities: Tianjin University and Shanghai Jiaotong University

The world-famous Sagrada Familia, in Barcelona, Spain
Ready to Join Us?

So, you’ve got a good feel for what it means to be a member of GT Computing. Are you ready to join our community? If so, great! We can’t wait to welcome you. Here’s some info to help you get started on your Georgia Tech application—the first step in a long and infinitely rewarding path to being more than you are today.

Georgia Tech Admissions: admission.gatech.edu

Financial Aid: finaid.gatech.edu/freshman

Pre-College Advice

Even though we think there is something at Georgia Tech for everyone, we tell students who are looking at colleges to find the right fit for themselves as individuals with specific tastes and comfort levels. Look at more than just the academics and reputation of the schools you’re thinking about. Are they places you can see yourself living and thriving for four or five years?

Applying to College

We’re looking for more than just academically strong students; we want to know what you can do to enhance the Georgia Tech community. So on your application be sure to include your social activities, leadership positions, part-time jobs, advanced placement classes, summer camps, or volunteer work. Use your essay to tell us more about who you are as an individual and why Georgia Tech is the right fit for you.

Intentional Advising

The Office of Undergraduate Advising uses a full-circle intentional advising approach to help computing students optimize their educational experience and achieve their goals. Through this approach, students create an educational plan, as well as participate in personal and career development opportunities.

Classes to Aid Transition

We want our students to be successful as they transition from high school to college and from college to alumni. We offer several classes to aid students as they make these transitions throughout their time at Georgia Tech.

CS1100

Also known as Freshmen Leap, this class is designed to help you begin your transition to college socially, academically, physically and personally. Throughout the course you will acquire strategies that promote your success while at Georgia Tech and beyond, learn more about the Thread options for both degrees from our faculty, and have the opportunity to network with fellow freshmen and College representatives.

GT1000

This course facilitates a study of you as a student at Tech. You learn about your personality, values, learning styles and self-concepts. This knowledge enables you to better strategize about your student career and the opportunities that are available beyond graduation.

Important Contacts

Jennifer Whitlow
Director of Computing Enrollment
jwhitlow@cc.gatech.edu

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Get Started
Advising & Contacts

Candace Mitchell
2011 Alumna, Computer Science
“The College of Computing opened up many doors for my career as an entrepreneur. I studied abroad in Barcelona, started new educational programs for high school students, and invented a product based on my passions. There’s a whole new world to explore if you work through the challenges to build your knowledge and step out into the unknown knowing that you have a world-class education and community to support you.”

Michael Maurer
Current Student, Computer Science
“From my first day, I was impressed by the closeness of the community at the CoC. Every professor I’ve had is passionate about the material and wants you to understand it. Fellow students become close friends because of a common passion, and are there to lend a hand when you need it. I am incredibly proud to be part of this close community of people who genuinely want to help.”

Rose Peng
2012 Alumna, Computational Media
“The Computational Media program at the College of Computing provided me with fantastic opportunities to expand my creative potential. It had numerous resources for me to learn and practice computer science while also allowing me to find new ways to apply my visual art skills. Overall, it provided a diverse and supportive community of students and professors who were there to help me learn new skills, meet new people, and succeed.”

Madeleyne Vaca
Current Student, Computer Science
“The College of Computing took me in my sophomore year of high school and never let me go. Through outreach programs, I was given the resources to build things that I didn’t know I was capable of making. These experiences led me to my passion and gave me the confidence to start conducting research in GT robotics labs. I can’t wait to discover what else GT Computing has to offer.”