UTCS Scholarships for Service
Preparing for a Career in Security

Dr. Bill Young
Department of Computer Sciences
University of Texas at Austin

Spring, 2016
How Bad Is It?

**Cyberwarfare greater threat to US than terrorism, say security experts**, Al Jazeera America, 1/7/14

Cyberwarfare is the greatest threat facing the United States — outstripping even terrorism — according to defense, military, and national security leaders in a Defense News poll.

45 percent of the 352 industry leaders polled said cyberwarfare is the gravest danger to the U.S., underlining the government's shift in priority—and resources—toward the burgeoning digital arena of warfare.
The U.S. Government Takes this Seriously

“The Pentagon has concluded that computer sabotage coming from another country can constitute an act of war, a finding that for the first time opens the door for the U.S. to respond using traditional military force.” (Wall Street Journal, 5/31/11)

“The Pentagon will expand its cyber security force from 900 personnel to a massive 4,900 troops and civilians over the next few years following numerous concerns over the dangerously vulnerable state of their defenses, according to US officials.” (rt.com, 1/18/13)
Cyber-attacks increase leads to jobs boom, BBC Business News, 3/25/14

As the number and sophistication of cyber-attacks increase, so too does the demand for people who can prevent such digital incursions. Cyber-security is having a jobs boom. But there aren’t enough people with the necessary skills to become the next generation of cyber-cops. According to the most recent US Bureau of Labor statistics, demand for graduate-level information security workers will rise by 37% in the next decade, more than twice the predicted rate of increase for the overall computer industry.
Experts in cybersecurity are among the most sought-after professionals in the tech sector, with demand for workers in that field outpacing other IT jobs by a wide margin. Cybersecurity professionals report an average salary of $116,000, or approximately $55.77 per hour. That’s nearly three times the national median income for full-time wage and salary workers, according to the Bureau of Labor Statistics.
What UT is Doing

As part of the U.S. push to enhance cyber defenses, UT and other major universities are ramping up programs to train cyber professionals.

- UTCS houses the Center for Information Assurance and Security, with around 12 affiliated faculty members.
- UT Austin is designated by NSA and DHS as a National Center of Academic Excellence in Information Assurance Research.
- UTCS offers a certificate in Information Security, sanctioned by the U.S. government.
- UTCS offers NSF Scholarships for Service, designed to equip students as security professionals and promote public service.
Scholarships for Service

Our NSF grant supports students seeking a career in information assurance and security.

- Participants are undergraduates or five-year masters students.
- Receive two years of generous financial support (or three if in five-year masters).
- Complete InfoSec Certificate in Information Security.
- Receive mentoring from the UTCS security faculty.
- Participate in security-related summer internships.
- Become part of a “cohort” of student security scholars.

In return the student must commit to professional employment with a government agency in security-related service, of duration equal to the period of support.
Program Goals

- Prepare the student with the academic knowledge to be a successful cybersecurity professional.
- Provide the student with career development skills to be a professional public servant.
- Increase student involvement in cybersecurity research.
- Place all program participants in summer internships.
- Upon graduation, place participants in full-time positions in information assurance within government agencies.
Annually, while in the program, each student receives:

- Tuition and fees for up to 12 credit hours for Fall and Spring semesters.
- $20,000 stipend.
- $1200 health insurance reimbursement allowance.
- $1000 for textbooks.
- $3000 professional development allowance (primarily to participate in federal agency career fairs).
Eligibility for the Program

Each participant in the program must:

- be a UT CS major (students may apply when CS Entry Level, but must be official CS majors to begin the program);
- have a minimum UT GPA of 3.2
- be a United States citizen;
- meet the criteria for employment with the U.S. Federal Government;
- be able to receive a U.S. Federal Government security clearance.
To continue in the program, each student must:

- maintain a 3.0+ GPA;
- complete their degree within two years;
- complete the InfoSec Certification within two years;
- be enrolled full time during the Fall and Spring semesters;
- maintain a resume on the U.S. Office of Personnel Management online system.
Required Activities

- Participate in an annual kick-off event;
- Be paired with a UTCS faculty member;
- Formulate personal goals for academic and career development and report progress monthly;
- Join a research team;
- Present research at a university forum;
- Attend 3+ research presentations in the UT CIAS lecture series;
- Participate in Security Day;
- Attend 2 career workshops;
- Attend a site visit at a Texas agency;
- Attend 2 on-campus and 1 national career fair;
- Mentor incoming students.
Apply to Tiffany Buckley in GDC 2.720 by noon, Friday, April 22.

Applications are on the website: https://www.cs.utexas.edu/undergraduate/academics/sfs.