

CYBERSECURITY: Scholarship and Job Opportunities



Malware Invasion in Cyberspace

- Blackhole Malware Exploit Kit (2012)
- Shamoon Virus (2012)
- Stuxnet Worm (2010)
- Operation Aurora (2009)
- and many others...



Job Opportunities

Organizations Need More Skilled Cyber Professionals to Stay Secure !

- Private sector
- Government
- Non-profit organizations



Specialty Areas

- Securely Provision: conceptualizing, designing, and building secure IT systems, with responsibility for some aspect of the systems' development;
- Operate and Maintain: supporting, administering, and maintaining the effective and efficient IT system performance and security;
- Protect and Defend: identifying, analyzing, and mitigating threats to internal IT systems and networks;

Specialty Areas (contd.)

- Investigate: investigating cyber events and/or crimes of IT systems, networks, and digital evidence;
- Operate and Collect: highly specialized collection of cybersecurity information that may be used to develop intelligence;
- Analyze: highly specialized review and evaluation of incoming cybersecurity information to determine its usefulness for intelligence;
- **Support:** providing support so that others may effectively conduct their cybersecurity work.

Job Title Examples

- Risk and Vulnerability Analyst
- Auditor
- Business Process Analyst
- Database Administrator/Developer
- Information Resources Manager
- Security Analyst
- Intrusion Analyst
- Ethical Hacker
- Computer/Network Defense Analyst (cryptologic)
- Computer Crime Investigator
- Special Agent
- Digital Forensic Examiner



Pace University is a **National Center of Academic Excellence in Information Assurance** Education









Undergraduate Programs

- <u>Bachelor of Science in Information Technology</u>
 - Security and Information Assurance Concentration
- <u>Bachelor of Science in Professional Technology</u>
 <u>Studies</u>
 - Computer Forensics Concentration
- <u>Minor in Information Assurance in the Criminal</u> <u>Justice System</u>
- <u>Certificate in Information Assurance in the Criminal</u>
 <u>Justice System</u>

Graduate Programs

- Master of Science in Computer Science
 - Network Security Concentration
 - Web Security Concentration
- Master of Science in Information Systems
 - Security and Information Assurance Concentration
- Master of Science in Internet Technology
 - Security and Information Assurance Concentration
- Advanced Certificate in Secure Software and Information Engineering
- Advanced Certificate in Security and Information
 Assurance



Co-Curricular Activities

- Independent Research
- Independent Project
- Guest Speaker Seminar/Talk
- Conference Participation
- Professional Organization Membership
- Competition
- Internship



Labs

- Cybersecurity Lab Pleasantville campus
 - Faculty Lead: Li-Chiou Chen, Ph.D.
- Mobile Forensics Lab New York City campus
 - Faculty Lead: Darren Hayes, DPS
- Robotics Lab New York City campus
 - Faculty Lead: Paul Benjamin, Ph.D.
- Pervasive Computing Lab
 - Faculty Leads: Charles Tappert, Ph.D. and Sung-Hyuk Cha, Ph.D.
- Seidenberg CyberSecurity Institute
 - Faculty Lead: Bel Raggad, Ph.D.



Scholarship Programs

- Information Assurance Scholarship Program
 - Funded by the Department of Defense
- Federal Cyber Service: Scholarship for Service
 - Funded by the National Science Foundation
- Seidenberg Scholarships
- Honors College Scholarships

Other Awards:

- Transfer Student Incentive Award
- Various University and School-based opportunities



Scholarship Eligibility

- U.S. citizen and 18 years of age;
- Currently enrolled in, or applied for transfer to, an undergraduate program at Pace University;
- Pursue or intend to pursue a course of study in cybersecurity as approved by the Program Director;
- Be within two years of graduation;
- GPA of at least 3.2 (UG) or 3.5 (Grad);
- Meet selection criteria for federal employment, including obtaining a security clearance;



Scholarship Benefits

- FULL tuition and all academic fees that apply for the duration of the program (two years typically)
- Stipend for each year in the program
- Textbooks allowance for each year in the program
- Paid summer internship with the government between the scholar's first and second year in the program*
- Full-time employment with the government*
- * The SFS Scholars are responsible to apply for and obtain a position. The Scholarship Program will provide help in identifying employment opportunities.



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