CYBERSECURITY

Why should I **major in cybersecurity** at HPU?

- As technology expands throughout daily life, so do threats and vulnerabilities. That is why we need you.

- HPU's Cybersecurity degree offered in the Computer Science department teaches you how to discover and investigate attacks like data breaches, malware infections, and software vulnerabilities. You discover how to build firewalls, encrypt data transmissions, and design access controls. Further, you will explore secure software and systems. By the time you graduate you will have the knowledge and skills to help protect organizations from all manner of cyber attacks.

Degree **offered**

- B.S. in Cybersecurity
- B.S. in Computer Science with an optional concentration in Cybersecurity

Cyber **Statistics**

- $2.9M – The cost of cybercrime on the internet per minute (Source: RiskIQ)
- $133.7B – Worldwide spending on cybersecurity is going to reach $133.7 billion in 2022. (Source: Gartner)
- 4.1B – Number of records exposed by data in the first half of 2019 (Source: RiskBased)

Learning **Environment**

- 36 iMac workstations
- 10 Dell PowerEdge servers with AMD EPYC™ chipsets
- Networking lab pods containing 4 switches, 4 routers, 2 wireless AP
- Over 100TB storage on a private SAN
- Private cloud with more than 300 compute cores and 1.5TB RAM
- Dual 1GB ethernet LANs (blue for defense; red for offense)
- 10GB storage ethernet LAN
- Isolated 1Gbps internet connection

Career **Outlook**

The U.S. has 715,000 people employed in the cybersecurity workforce, and there are currently 314,000 unfilled positions. Students with degrees in cybersecurity have careers as:

- Cyber Security Specialist/Technician
- Cyber Crime Analyst/Investigator
- Incident Analyst/Responder
- IT Auditor

Relevant **curriculum**

The Department of Computer Science's primary goal is to develop the knowledge, skills, and abilities required in the cybersecurity workforce. The curriculum is designed to allow exceptional students to excel in their area of interest. The professors strive to guide students in their discovery and learning of new ideas, rather than just presenting carefully structured theories. Applications are used throughout to illustrate and create new material. Most topics are developed by means of interplay between applications, problem solving and theory. Early courses are designed to appeal to a broad audience of university students, while higher-level courses are more focused.

Mid-career median pay for cybersecurity majors: **$93,250**

15% faster growth than the average for all occupations - U.S. Bureau of Labor Statistics

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Research/employment **opportunities**

Recent HPU graduates hold the following positions:

- Associate Software Analyst at The MathWorks, Inc.
- Associate Software Engineer/Developer at Fidelity Investments
- Attending graduate programs in Computer Science at schools like Clemson University and Wake Forest University
- Director of AI Research at Apple Inc.
- iOS Advanced Development Senior Engineer at Apple Inc.
- Senior Performance & Kernel Engineer at Verizon Digital Media Services
- Software Engineer at Gilbarco Veeder-Root
- Started their own company, Cirtual LLC

HPU students participating at a Tracer FIRE cybersecurity event hosted by Sandia National Labs

Learning Cybersecurity **Life Skills**

Research and practice are vital to learning cybersecurity life skills. While our classes show you the fundamentals of programming, networking, and cybersecurity, the Cybersecurity Engineering Learning Facility (CELF) is where we get hands-on. This is a world-class laboratory designed from the ground up to serve as the HPU hub for training, research, analysis, and programming in all things cybersecurity. Learn to defeat simulated cyberattacks, land an internship where you can put your skills to work and prepare for the workforce, publish a scholarly article addressing an existing challenge in the field, and more.

Extraordinary **outcomes**

HPU students are involved in the following extra-curricular experiences:

- Top 15% finish in individual National Cyber League competition
- Top 25% finish in team Hacktober international cybersecurity competition
- 1st place finish in HPU URCW High-PURCS 2021 research poster competition
- 1st place finish in ACM MidSoutheast 2020 research poster competition
- 2nd place finish in ACM MidSoutheast 2019 research poster competition
- Internships at FireEye, Microsoft, and IBM

Meet **Reza**

Hometown: Isfahan, Iran

Major: Computer Science

Career: Co-founder & CEO at Cirtual LLC

Clubs: Catholic Ministries (HPUCCM), Tower Players, MACS Club (Math, Actuarial Science, Computer Science), Ethics Team

Leadership Positions: SGA Junior Class Representative, SGA Executive Council Academic Chair, co-founder of Tutor Club, Student Justice

Why I Chose HPU: "I chose HPU because it offers the best environment for growth, and it is a true inspiration for me to be my best at all times."