CyberCorps Info Session

Michigan Technological University

What is CyberCorps:SFS?

- CyberCorps: Scholarship for Service (SFS) Program at Michigan Tech
 - A national program designed to recruit and train the next generation of cybersecurity professionals for Federal, State, local, and tribal governments.
- Michigan Tech is a proud participant in the CyberCorps program through a multi-million dollar grant awarded by the National Science Foundation (NSF).
- Website: <u>https://www.mtu.edu/sfs/</u>
- Mixed use of "CyberCorps" and "SFS"



Scholarship Benefits

SFS scholars (scholarship recipients) shall receive all of the following:

- Full-time tuition and education related fees
- Stipend: \$27,000 per year for undergraduate students and \$37,000 per year for graduate students
- Professional development allowance (travel, professional certification etc.) up to \$6,000 per academic year
- Additional non-financial benefits
 - Community; mentoring; career opportunities...



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Obligations for Scholarship Recipient

- Work immediately following graduation for the Federal Government or a State, Local, or Tribal Government in a position related to cybersecurity for a period equal to the length of the scholarship
- Participate in government internship positions in the summers during the years of scholarship study
- Participate in other SFS activities, such as weekly individual meetings, monthly group meetings, cyber competitions, conferences and workshops



Obligations for Scholarship Recipient. Cont.

- Meet other SFS requirements, such as signing Service Agreement Forms and maintaining good academic standing.
- SFS scholars are responsible to apply for and obtain a position. Michigan Tech's SFS program
 will provide assistance to SFS scholars by helping identify employment opportunities.

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CyberCorps[®] SFS Top Placements

- Over 95% SFS scholars successfully secured a government job after graduation.
- Over 75% stay in their positions beyond the required service period.

Post-Graduation Agency	Number
National Security Agency (NSA)	635
Department of Navy	309
MITRE managed FFRDCs	251
State/Local/Tribal Government	212
Department of the Army	175
Department of Homeland Security	131
Sandia National Laboratories	136
Department of Defense	109
Department of Justice	89
John Hopkins Applied Physics Laboratory	87
Department of Air Force	92
Central Intelligence Agency (CIA)	71

Eligibility for Scholarship

- United States citizen or lawful permanent resident;
- Meet selection criteria for U.S. federal employment;
 - Internship placements and final job placements in government organizations typically require high-level security clearances.
- Current or prospective full-time student pursing cybersecurity degrees at Michigan Tech;
- Have at least a 3.0 undergraduate GPA;



NSF SFS Project Team







Yu Cai, Pl Professor, Applied Computing

Jean Mayo, co-Pl Professor, Computer Science

Todd O. Arney, co-Pl Senior Lecturer, Applied Computing



Chee-Wooi Ten, co-Pl Associate Professor, Electrical and Computer Engineering



Bo Chen, co-Pl Assistant Professor, Computer Science



Kedmon N. Hungwe External Evaluator Professor, Cognitive and Learning Sciences



Chris Hohnholt Senior Personnel Pavlis Honors College

Minnan Fei Project Coordinator



SFS Overview



Transfer Students from Community Colleges

Pavlis Honors College



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How to Choose a Curriculum Track?

- If you are a freshman or high school students,
 - Come to MTU, join the RedTeam, and start preparing yourself.
- If you are a sophomore (or 2 more years for a BS degree)
 - 2 year BS degree in cybersecurity or other computing degrees
 - With an option of third year support for accelerated MS in Cybersecurity
- If you are a junior (or 1 more year for a BS degree)
 - 1 year BS + 1 year accelerated MS in cybersecurity



How to Choose a Curriculum Track?

- If you are a senior and plan to pursue MS in cybersecurity, or if you are not from MTU, or if your cybersecurity background is limited
 - 2 year MS in Cybersecurity
- If you are from a community college,
 - Transfer to MTU after completing the degree at the community college
- Contact Prof. Yu Cai (cai@mtu.edu) for questions.



Candidate Selection

- A highly selective process and subject to grant funding availability
 - Five to six students each year
- Initial assessment of submitted materials => In-person interview => Background check => Admission into the program => A lot of paperwork =>...
- SFS scholarship recipients are selected based on:
 - 1. Academic performance and potential
 - 2. Resume highlighting cybersecurity experience and achievements
 - 3. Essay/video outlining the applicant's objectives as it relates to cybersecurity and a career in government
 - 4. Reference check and background check
 - 5. Interview



Candidate Selection

- The most important goal for the program:
 - Ensure a 100% graduation rate and a 100% job placement rate.
- What makes you a good candidate for the SFS program?
 - 1. Satisfactory academic performance and potential
 - 2. Commitment to complete the CyberCorps program successfully
 - 3. Commitment to government services after graduation
 - 4. Technical skills and experience (such as internship, cyber competitions, cybersecurity projects...)
 - 5. Soft skills (such as leadership, communication, team work...) and experience
 - 6. Possibility to get high-level security clearance



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Practical suggestions to strengthen your qualification

- Join the RedTeam
- Participate in NCL and other cyber competitions.
- Try to find summer internships
- Take cybersecurity courses and conduct cybersecurity projects
- Take leadership roles in student organizations
- Study hard and get good grades



Application Materials

- Online application form
- Proof of U.S. Citizenship or lawful permanent resident status
- A resume including list of academic recognitions, awards, honors and distinctions received
- Transcript(s) from all of the colleges and universities attended
- Names and contact information of two reference providers. No letters needed.
 - One should be able to address the applicant's academic performance and potential for success. The other should be able to address the applicant's character and work ethic.
- A short essay (no more than 2000 words) or a short video (no more than 15 minutes) describing the applicant's:
 - goals and motivations to pursue a career in cybersecurity
 - commitment to the service obligation and understanding of government jobs
 - past achievements and experiences related to cybersecurity
 - leadership, teamwork, and communication skills

Online Application

- Visit mtu.edu/sfs
- Applicants should submit all required items through <u>the online application portal on the</u> <u>SFS website</u>.
- New applications for the 2023-2024 CyberCorps cohort will be accepted by March 1st, 2024.



Mentoring Activities

- Each SFS scholar will be assigned a faculty mentor
 - All PI/co-PIs are faculty mentors
- Create a friendly learning community which encourages a give-and-take dynamic
- A list of mentoring activities
 - SFS Introduction Session
 - Bootcamp
 - Personalized Curriculum Plan
 - One-on-one weekly meeting with the assigned mentor
 - Monthly group meetings and coffee chats
 - Professional development workshops



Mentoring Activities

- A list of mentoring activities
 - Join the RedTeam
 - Cybersecurity conferences
 - Cybersecurity competitions
 - Cybersecurity certifications
 - GenCyber/SYP outreach activities
 - Undergraduate research
 - Graduate research







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