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CWIT update

THE CENTER FOR WOMEN IN TECHNOLOGY AT **UMBC**
AN ARBOR UNIVERSITY IN BALTIMORE

A Word From the Director

By Dr. Anne Spence

The students, staff, alumni, and faculty that form the backbone of our CWIT community continue to impress me with their commitment to student success and inclusion. You will not find a better team anywhere!

I enjoyed cheering our CWIT, Cyber and T-SITE Scholar graduates at commencement on May 19. Read about their plans for the next phase elsewhere in this newsletter.

We have finished selecting the next cohort of all three Scholar programs. Our C15 cohort of thirteen CWIT Scholars is Megan Allison (South Aiken HS, SC), Mariana Bueno (Stamford HS, CT), Seamus Burke (The Excelsior Academy), Heather Deval (Broadneck HS), Maria-Deney Hawkins (South River HS), Srinithi Jayaram (Carver Center), Fernanda Jimenez Capetillo (Eleanor Roosevelt HS), Zoe Leckron (Oakland Mills HS), Elizabeth Marr (Kent Island HS), Samantha Maygers (Mercy HS), Tatiana Nguyen (Seneca Valley HS), Stephanie Saloka (Seton Keough HS), and Jameka Wiggins (Charles Herbert Flowers HS).

Our Y4 cohort of Cyber Scholars are Hannah Russell (CMSC), JoHannah Couture (IS), Victoria Herr (IS), Lauren Loftus (CMSC), Alejandro Ramirez-Polania (CMSC), Priyanka Ranade (IS), John Shueh (CMSC), Bethany Von

Ludwick (IS), and Sarah Yake (CMSC). Grace Ashburn (CMSC), Holly Mann (CMSC), and Badi Prudence Kao (CMPE) will join us as Cyber Associates. Finally, our T5 cohort of T-SITE Scholars are Sam Mendimasa (MC), Achua-chua Tesoh-Snosel (PGCC), and Jessica Davis (PGCC). We are thrilled that they have chosen to join the CWIT/Cyber/T-SITE scholar programs at UMBC.

As I approach the end of my year as Interim Director of CWIT, I must thank the CWIT staff for their incredible efforts in making this an amazing year. Cindy, Crystal and Susan work tirelessly to insure that our students are successful in all areas of their lives. Unfortunately, Crystal has recently left UMBC to be the Director of Enrollment and Alumni Engagement for the School of Social Work with Baylor University in her home state of Texas and Susan will be joining UMCP as the Program Director for Doctoral Career Development. Both Susan and Crystal have invested themselves in the CWIT program and the results have been extraordinary. Please thank Susan, Crystal and Cindy for being the heart and soul of the CWIT program. Best wishes, Susan and Crystal!



CYBER Corner

By Cindy Greenwood

It's always hard to believe when another year comes to an end. This spring, the Cyber Scholars Program continued the bi-weekly cyber workshops that were started in the fall. Most workshops were student-led, but the three in April were led by industry professionals: Cyber Scholar alumna Victoria (Lentz) Villalonga of JHU/APL, Kevin Roberts and Daniel Lohin of Sealing Technologies, and Connor Riley and Beshoi Genidy of the Cyber Academy at Northrop Grumman. These were great opportunities for current Scholars & Affiliates to learn about new topics and gain skills through hands-on activities.

Another Cyber Scholar alumna, Lauren Mazzoli, also gave time back to our program this semester. Lauren led a semester-long competition, sponsored by Northrop Grumman (where she now works), for teams of Cyber Scholars and Affiliates. You can read in-depth about that competition in an article written by Lauren in this newsletter.

This semester, we also celebrated senior Cyber Scholar Rachel Cohen, who was one of only 15 college women in the country to receive the Scholarship for Women Studying Information Security (SWSIS). SWSIS is a partnership of Applied Computer Security Associates (ACSA) and Computer Research Association - Women (CRA-W), with sponsorship from ACSA and the Hewlett-Packard Enterprise (HPE). Rachel is the third Cyber Scholar in as many years to receive this award, following Victoria Villalonga in 2014 and Alejandra Diaz in 2015. As we move into the summer, we will say goodbye to three graduates and will see current Scholars head to internships at Northrop Grumman, NSA, Microsoft, Acuity Solutions, and several other locations. We look forward to welcoming a cohort of twelve new Scholars and Associates in the fall.

Mark Cirincione

(CWIT Scholar)
Information Systems

Future Plans: Eagle Alliance

Most Proud of...turning around after my freshman year and graduating on time with a 3.5 GPA and what looks to be a decent starting job in a career field I enjoy.

Beatrice Garcia

(CWIT Scholar)
Computer Science

Future Plans:

Software Engineer at the Johns Hopkins Applied Physics Laboratory

Most Proud of...staying in this major, making a lot of friends and professional connections and helping others (especially younger students).

Travis Ward

(T-SITE Scholar)
Computer Engineering

Future Plans:

Electrical Engineering at Northrop Grumman

Most Proud of...CWIT solidified my views on what it means to be a force for increased tolerance and diversity in professional settings.

Katherine Geisler

(CWIT Scholar)

Mechanical Engineering

Future Plans:

Mechanical Engineer at the Naval Surface Warfare Center

Most Proud of...graduating with a degree in Mechanical Engineering.

Austin Cole

(Cyber Scholar)

Information Systems

Future Plans:

Network Analyst at National Security Agency

Most Proud of...making it to graduation with a job I am proud to have!

Matthew Odunjo

(T-SITE Scholar)

Information Systems

conGRADulations!

Our Graduating Seniors &

Shannon Donelan

(CWIT Scholar)

Mechanical Engineering

Future Plans:

Design Engineer in Edison Engineering Development Program at GE Aviation, MS in Aerospace Engineering

Most Proud of...the confidence I gained since freshman year and now I know that I have the ability to do whatever I put my mind to.

Samantha McDonald

(CWIT Scholar)

Information Systems

Future Plans:

Graduate School at UC Irvine

Most Proud of...going beyond my major to keep learning.

Nicole Racine

(CWIT Scholar)

Mechanical Engineering

Future Plans:

PhD at Carnegie Mellon in Engineering and Public Policy

Most Proud of...getting into Carnegie Mellon's graduate school!

Holly Johnson

(CWIT Scholar)

Mechanical Engineering

Future Plans:

Most Proud of...how much I have grown since coming to college. I have become a better leader and learned to improve my professional skills so much more than I thought I would have.

Vitaliy Turechykov

(Cyber Scholar)

Computer Engineering

Future Plans:

Software Engineer at Northrop Grumman

Most Proud of...being part of the CWIT family and having the opportunity to meet and work alongside all of the amazing students and professors.

John Swank

(CWIT Scholar)

Computer Science

Most Proud of...the lifelong friendships I've made over my four years in CWIT.

Aaron Gray

(Cyber Scholar)

Information Systems

Future Plans:

Began full-time work at Amazon in spring

Nicole Dawson

(CWIT Scholar)

Information Systems

Future Plans:

Systems Integration Analyst at Lockheed Martin, MS in Information Systems @ UMBC

Most Proud of...my strength since freshman year. I know now that with hard work and determination, a rebound is always possible.

Alicia Goldstein

(CWIT Scholar)

Mechanical Engineering

Haley Sweeton

(CWIT Scholar)

Information Systems

Future Plans:

Business Technology Analyst for Deloitte

Most Proud of...getting a job that will help me grow.

Anastasia Raffucci

(T-SITE Scholar)

Computer Engineering

Future Plans:

Asymmetric Operations at Johns Hopkins Applied Physics Lab

Most Proud of...that despite all the life difficulties I am graduating university with a BS in Computer Engineering.

April Wasserleben

(T-SITE Scholar)

Chemical Engineering



Summer 2016
Internship and
Research Plans

ABERDEEN PROVING GROUND

Allison Lewis (C13)

BGE

Kelsey Hof (C12)

CISCO SYSTEMS

Jacob Riehl (C13)

Kwame Robertson (Y3)

DEPARTMENT OF DEFENSE

Cristina Fortiz (T4)

Rachel Cohen (Y2)

EXELON

Oladipupo Eke (T3)

Kourtney Rutkowski (C12)

Tess Wootton-Klebanoff (C13)

GE AVIATION

Alliana Warner (C14)

GOOGLE

Katie Dillon (C13)

HERSHEY COMPANY

Celia Drew (C11)

IBM

Natacha Ngea (T3)

INTERVARSITY CHRISTIAN FELLOWSHIP URBAN PROGRAM

Sophia Hare (C12)

JHU-APL

Nadja Osiander (C14)

KAYDON RING AND SEAL

Grace Tarnosky (C13)

LOCKHEED MARTIN

Emily Yu (C14)

MICROSOFT

Sara Masoudi (C13)

Katie Swanson (Y2)

NEXT CENTURY

Bailey Rouk (Y3)

NORTHROP GRUMMAN

Michael Byers (T3)

Sami Tursky (Y2)

PROBJECT

Kristin McLaughlin (C14)

REU- OAKLAND UNIVERSITY

Emily Duan (C14)

STANLEY BLACK AND DECKER

Hannah Corcos (C12)

SMUCKERS

Samantha Smith (C12)

T. ROWE PRICE

Sarah Heiner (C14)

TAYLOR TECHNOLOGIES

Olivia Tillett (T3)

TENABLE NETWORK SECURITY

Seth Jenkins (Y2)

UMBC DoIT DEPARTMENT

Tyler Boyle (C14)

Theodora Martin (C13)

UNITED STATES POSTAL SERVICE

Sergey Grokhovetskiy (Y3)

VERIZON

Megan Lynch (C12)



BITS AND BYTES

CWIT's annual Bits & Bytes overnight event for high school junior girls didn't go quite as planned this year, thanks to an unexpected snow day. Thirty-one girls interested in computing and engineering arrived on campus on Sunday, February 14, and heard encouraging words from current Scholars as well as a keynote speaker, Joan Worthington of HireVue. They participated in a discussion about issues facing women in technical fields, facilitated by current Scholars, and bonded through icebreakers and other games in Chesapeake Hall before spending the night on the CWIT living-learning community. When UMBC announced at 5:00 a.m. the next day that campus would be closed due to inclement weather, however, the schedule had to change. Families were advised to pick up their daughters by noon. In the few hours available, the student committee managed to improvise and facilitate abbreviated versions of the computing and engineering competitions right there in the Chesapeake basement. The girls also participated in a discussion about CWIT and our Scholars Programs as well as what they can do now to make themselves strong applicants for STEM majors when they apply to college, among other topics. Despite the shortened program, many students and their families offered positive feedback about their experience with Bits & Bytes. We will hope for better weather next year!

INSIDE THE AFFILIATES PROGRAM (AS TOLD BY A CURRENT STUDENT ASSISTANT)

By: Shannon Clancy

Being a part of such a rewarding, resourceful program as CWIT has led me to grow personally and professionally in the last year. In high school when I was deciding on colleges, a big factor was a sense of belonging and community I desired out my college experience. When I discovered CWIT, I instantly fell in love. This community was one of the biggest reasons I chose UMBC and prompted me to be as involved as I could. After being involved with Best of CWIT, attending the bi-weekly Affiliate workshops, the Fall Networking Event, and, living on the LLC and in the FYE class, I was selected to become a Student Assistant in the office to aid in launching an improved Affiliates program. So far we have written over 470 letters to all the women in IT and Engineering for the Fall 2016 admitted women, encouraging them to come to UMBC and learn about the resources CWIT has available to them. In those letters, we invited them to our new CWIT A-to-Z Event. This event in mid-April included information about CWIT community, FYE, the LLC, and current Affiliates and Scholars sharing their experiences. Though small, the event was a great success for the girls who attended. Looking ahead, there will be an Affiliate Summer Retreat in mid-August as a way for new and current women in COEIT to make connections, become a part of the community, and get excited for next semester.

As I work in the office this summer, I look forward to the improvements that can be made to the program and the differences made in the lives of these women to be successful in our technical majors.

NORTHROP GRUMMAN COMPETITION

By: LAUREN MAZZOLI '15 (Y1), NORTHROP GRUMMAN

It is common knowledge that there is a high demand for cyber professionals. Northrop Grumman is actively seeking the next-generation of cyber professionals. In addition to being a founding partner of the Cyber Scholars Program, Northrop Grumman also sponsored a Cybersecurity Competition for interested Scholars and Affiliates.

Five teams of students presented final web applications to a panel of judges on May 4. Each team, consisting of 4-5 students, was challenged to develop an original security-related web application using a Raspberry Pi and a budget of \$100. A Raspberry Pi is a credit card-sized, single-board computer that is used to teach computer science. Each team was paired with a Northrop Grumman mentor to help them through the process. The applications they developed were incredible, to say the least.

The web applications included the following:

- **Warrior Pi** – Allows a user to attack and defend a server using two Raspberry Pi's.
- **Athena** – Performs system hardening to a Linux Operating System through a Raspberry Pi and friendly UI.
- **2nd Router to the Right** – Allows a user to break a WEP encryption on a server and start monitoring network traffic.
- **Triton** – Used the Raspberry Pi to perform reconnaissance and exploitation on host networks and other infrastructures.
- **Selfie Security** – A password manager that used facial recognition to load a user's passwords into a web page.



The first place team was "2nd Router to the Right" and the second place team was "Athena." Each member of the winning team was given a laser-etched trophy and a brand new 23" HP monitor. Members of the second place team were given a trophy and a mobile battery pack to charge their cell phones while on the go.

In addition to learning about cybersecurity, the students also learned the importance of communication and working together on a team. **Bailey Rouk, a junior Cyber Scholar, says "I learned how to teach myself new skills on the fly and how to be resilient when things don't quite go the way you expect them to."**

CWIT SHOWCASE

Seventeen Scholars and Affiliates presented sessions to their peers at the annual CWIT Showcase event. Topics ranged from studying abroad to finding funding for ideas launched during hackathons, what it's like to intern at a startup company, and "Why Research is Awesome," as one Scholar titled her presentation. We are always impressed by all that our students do and this event is a great way for them to share their knowledge, experiences, and accomplishments with one another.

Alumni Updates

Karen Dickens (C9) is being sent by T. Rowe Price to Sydney, Australia! Since she started full-time in June 2014, she has been to Colorado, Tampa, Toronto, and London.

Heidi (Brueckner) Robertson (C1) welcomed her first girl Charlotte Grey in the blizzard on January 23! She also has been promoted to Lead Systems Engineer at CareFirst.

Mike Brown (T1) and his wife bought a house in Baltimore. He also passed his EIT exam.

Kiante Brantley (T2) is graduating from UMBC with M.S. in Computer Science with a focus in machine learning. He plans to pursue a PhD in Computer Science in the fall.

Samantha Celmer (C9) finished her MS in Environmental Science from JHU and will start her full-time position with the US Army Public Health Center on July 25.

Littleton Riggins (C6) recently switched to Under Armour as a Big Data Visualization Engineer.

Tim Burke (SITE) has accepted a position in the Office of the Vice Provost for Research at Cornell University, building tools that help Cornell's research faculty visualize and track their grant funding.

Nathan Cline (Y1) Transitioned from Software Engineering PDP to Embedded Software Engineer at the Northrop Grumman Annapolis campus.



CWIT'S SPRING CALENDAR

January:

- 29 CWIT Welcome Back Pizza & Cupcakes (open to everyone in COEIT)
30 Spring Retreat

February:

- 1 CWIT Family Meeting
10 Men in CWIT meeting
14-15 Students volunteer with Bits & Bytes
18 NG Cyber Competition Launch
27 Scholar Selection Day

March:

- 28 CWIT Pick Your Classes Extravaganza
30 Men in CWIT Meeting
NC Cyber Competition Check-In

April:

- 2 CWIT Formal
4 CWIT Spring Into Leadership
8 T-SITE/Cyber Selection Day
20 Men in CWIT Meeting
22 CWIT Showcase

May:

- 4 NG Cyber Competition Finale
7 CWIT/PWIT
End-of-Year Picnic
17 CWIT Senior Dessert
19 Undergraduate Commencement



Shout Outs!

Scholars send anonymous kudos, congrats, and encouragement to their community

Many of the statements began with "I am proud of..."

Rachel Cohen (Y2) for her scholarships (and awesomeness in general)!

Jacob Riehl (C13) for his great work with Men in CWIT and keep it up! Also, you have grown so much in confidence!

Sam McDonald (C11) for her kicking butt in her own research project, award in URCAD for it, being published, and acceptance into UC Irvine to start her PhD program!

Rebekah Kempke (C14) for getting an internship this summer!

Elyse Hill (C12) and **Hannah Corcos (C12)** for looking out for me in my Freshman year and being awesome TAs!

Celestine Wong (C13) for becoming President of UMBC Hack! Woop woop!

Katie Dillon (C13) for helping me a lot with computer science artificial intelligence projects! You are a great friend!

Hannah Aris (C13) for maintaining a positive attitude despite stress and a busy schedule. She's a great example for others and has such an optimistic outlook!

C11 Cohort Congratulations on graduating! We made it!

T-SITE Update

By Dr. Susan Martin

The T-SITE Scholars Program: Reflecting on the Past Four years

Since Fall 2012 transfer students have been successfully served within the CWIT community through the T-SITE scholars program. T-SITE is funded by two S-STEM grants from the National Science Foundation. CWIT has awarded 28 T-SITE scholarships of \$6,700 annually to transfer students from Maryland community colleges as part of a five year NSF S-TEM funded project (DUE-1154300). Four T5s will begin this fall as part of the second S-STEM funded project (DUE-1458343) which will serve 25 transfer scholars majoring in computer science, computer engineering, information systems, and business technology administration. T-SITE has shown that transfer students from very diverse backgrounds can effectively be served by the CWIT Scholar community. As of May 2016:

- 46% of the 28 scholars from the first grant were women and 43% were African American or Hispanic.
- All T-SITE scholars in the first three cohorts have engaged in an internship or research experience.
- Twelve of 13 scholars in the first two cohorts have graduated and 11 were employed before graduation.
- 100% of all students in the first four cohorts were retained in engineering or computing majors. In addition, the average time to graduation is three years after transferring to UMBC. These results are far better than the average metrics of STEM transfer students nationally.

The T-SITE project has also provided insights into the realities and challenges faced by transfer students majoring in computing and engineering. Many of the T-SITEs are first generation college students, including a number who come from families that immigrated to the U.S. and those who don't have significant financial support from their families. They navigate long commutes to campus and juggle part-time work and family roles. Although all were academically successful at Maryland community colleges, there was still a period of academic adjustment in which T-SITEs need to sharpen their time management and develop stronger study skills. CWIT community support, ongoing peer mentoring, and excellent faculty advising and mentoring provide new T-SITEs with vital information upfront that enables them successfully transition quickly to their new environment and demands of their majors.

Bragging Rights: Scholars' Awards & Accomplishments

Sami Truskey (Y2) for becoming the VP of Cru and Northrop Grumman Student Ambassador.

Rachel Cohen (Y2) is the winner of the 2016 Scholarship for Women Studying Information Security

Connor Craft (C14) will be an RA in 2016-2017 and earned a 4.0 GPA.

Katie Swanson (Y2) was initiated into Alpha Sigma Kappa- Women in Technology Sorority.

Samantha McDonald (C11) had one of her research publications accepted as a single authored paper.

Kourtney Rutkowski (C12) has been inducted into Tau Beta Pi and found out a manuscript she wrote as a third author was officially published.

Savannah Steiny (C13) received an Undergraduate Research Award for her work in environmental engineering, presented at URCAD, and had two works published in Bartleby.

Katherine Geisler (C11) placed 3rd in the BWCFC

Chaos Fencing Tournament Women's Sabre.

Grace Tarnosky (C13) became VP of Astronomy Club and was elected Secretary of the AIAA (American Institute of Aeronautics and Astronautics)

Bryan Vanek (T4) was elected President of Cyber Dawgs

Sara Masoudi (C13) worked in the IRC to launch a beta version social media site for UMBC's 50th anniversary.

Samantha Smith (C12) co-led a project developing a dressing device that increased a woman's independence by allowing her to dress herself and was elected ASME President

Bailey Rouk (Y3) was voted Treasurer for Honors College Council and given a scholarship for women in Cyber Security for next semester.

Jacob Riehl (C13) was inducted into Tau Beta Pi, became a TA for CMSC 201, and took over leading the Men in CWIT group.

Theodora Martin (C13) was elected VP of Rocketry Club, inducted into Tau Beta Pi, and was selected to be a Woolie for next fall.

Haley Sweeton (C11) earned IS Dept. Student Leadership, Outstanding Seniors in IS, and Outstanding Seniors Earning Networking Certificates awards.

Erica Haschert (C14) was nominated as Secretary of the UMBC Equestrian Team.

Hannah Aris (C13) travelled to Nicaragua with Medical Global Brigades, leading 38 students running two free medical clinics.

Mark Cirincione (C11) for helping me get back on track! I become so much more organized with your spreadsheets!

Maria Brown (C14) for taking many CS's under your wing this year! Even when the projects felt impossible, I could always count on you for your encouragement and advice!

Nicole Racine (C11) for being there for me throughout the year! She's been like a mini-mentor with ASME and I can't wait to make her proud!

Holly Johnson (C11) Congrats my super fabulous BigWit for graduating! She has been an awesome friend and I will miss her lots :)

C14 Cohort Congrats on getting through your freshman year! You guys are amazing!

Savannah Steiny (C13) for becoming a part of the Honors College Council!

Katherine Geisler (C11) great job planning the formal! It was a lot of fun

Sophomores on the LLC for being a big help this year and we really appreciate all the times you've helped everyone on the floor because we know it can be really busy!

Affiliates in C14 Cohort for being super active and amazing. You all are gonna do amazing things!

CWIT Office for being so supportive and thank you for everything you've done! **Dr. Susan Martin** and **Dr. Crystal Diaz Espinoza** will do great things in their coming adventures and will be greatly missed and even more appreciated by everyone here in the community!

Shannon Clancy I want to give a HUGE shout out for helping me a lot this past year. She's been a rock for me, making sure I stay ahead of my assignments. I'm super proud of her for standing up for what she believes in and helping to make a difference in this program. You go girl!

Travis Ward (T3) for organizing a study session for Computer Engineers!



The Center for Women in Technology

1000 Hilltop Circle, ITE452
Baltimore, MD 21250
410-455-2822
www.cwit.umbc.edu

Send newsletter submissions to cindyg@umbc.edu