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CWIT update

THE CENTER FOR WOMEN IN TECHNOLOGY AT **UMBC**
AN HONORS UNIVERSITY IN MARYLAND

Note from the Director...

By Dr. Penny Rheingans, CWIT Director
New beginnings seem to come in batches in CWIT. This fall was no exception. Our staff and students are beginning new adventures. We said goodbye to Katie Glasser, who is off to a new start in Sydney Australia. We're getting to know our new Assistant Director, Crystal Diaz, who comes to us from the University of Tennessee, Knoxville. Read more about Crystal elsewhere in the newsletter or drop her a note to say 'hi'. Two of our Scholars are graduating early in order to start their next adventures. Katelyn Toy (Information Systems) and Rachel Sweeton (Computer Science) will graduate this month.

We're excited to have a new Scholar Program under the CWIT umbrella. Eight T-SITE Scholars have joined the CWIT family. T-SITE has been funded by the National Science Foundation to create opportunities for three cohorts of high-performing transfer students in engineering and IT. Our inaugural T-SITE cohort contains

Scholars in Computer Engineering (Anastasia Iljina, Natalie Morningstar, Matthew Odunjo), Mechanical Engineering (Claudette Dupont, Nishay Raja, Kabish Shah), and Chemical Engineering (Michael Brown, Ankush Rattan).

Finally, we're gearing up to add a third Scholar Program in the fall. CWIT will partner with the UMBC Center for Cybersecurity to create the Cyber Scholars Program. The Program will be available to new freshman, new transfer students, and continuing UMBC students with an interest in cybersecurity. Our first cohort will arrive in fall 2013.

Stay tuned for our next set of new beginnings. I'm confident there are more exciting opportunities just around the corner. As always, we could not do what we do without the generous support of our friends and partners across UMBC and beyond. We are grateful for their strong and unwavering support. Have a happy holiday season and come look us up in the New Year.

A New Scholars Program

By Anissa Elmerraji

The **UMBC Cyber Scholars Program** is a brand-new scholarship program directed by the new UMBC Center for Cybersecurity and run by UMBC's Center for Women in Technology (CWIT). The program was born out of a \$1 million grant from the Northrop Grumman Foundation.

Next fall the program will support its first batch of 15-20 scholars. Selected from a pool of new freshmen, transfer students, and current students interested in Cybersecurity careers, the program puts special emphasis on women and under-represented minorities.

Cyber Scholars will be incorporated into a scholarship community based out of a special on-campus Living Learning floor. They will learn from and support one another throughout their college careers, and from core interaction with UMBC faculty and mentors.

"We know from our experience in CWIT that early exposure to cybersecurity challenges and mentoring by faculty helps students develop a deep interest in the field, increases their motivation to persist and improves retention," said Penny Rheingans, director of CWIT, in a UMBC press release. "Connections to a supportive peer group and strong mentors are particularly important for students from underrepresented groups who may other-

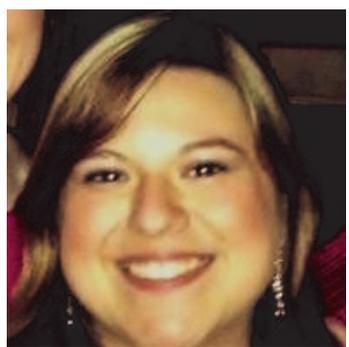
wise lack a sense of belonging in the discipline."

Each Cyber Scholar will be assigned a faculty advisor who is pursuing cybersecurity-related research of their own. They will have the chance to carry out original research in their field, taking advantage of existing Cybersecurity facilities like the Center for Information Security and Assurance and the Cyber Defense Lab. In their Junior or Senior years, scholars will intern at a local company or government organization, like those housed in UMBC's Cyber Incubator@bwtech.

"Cybersecurity is of critical national importance, since computer systems are part of the nation's critical infrastructure," said Anupam Joshi, director of the UMBC Center for Cybersecurity. "But students often don't understand the field and women are particularly likely to see it as a bad fit for them. The scholars program gives us a chance to change that perception and show how rewarding and socially important this work can be."



The UMBC Cyber Scholars Program is accepting applications until January 15, 2013. Visit <http://cybersecurity.umbc.edu/cyberscholars/> to apply.



Meet the New Assistant Director...

By Crystal Diaz

I come to UMBC from the University of Tennessee, Knoxville, where I am currently pursuing my PhD in Higher Education Administration. My dissertation is an Institutional Ethnography studying undergraduate women in engineering. Prior to pursuing my PhD, I worked for the School of Engineering & Computer Science and the ECS Living-Learning Center at Baylor University while obtaining my Master's degree is Higher Education & Student Affairs.

I cannot be more excited to be working at UMBC, and more so with CWIT. Starting this job has been an amazing whirlwind but I feel ready to take on the challenge because of the time I was able to spend with our outgoing Assistant Director, Katie Glasser. Her advice and input were invaluable and I have enjoyed every minute of my new job.

The CWIT mission and everything UMBC is doing for undergraduate education made me know that I wanted to be a part of this community. I am thrilled to be a part of helping increase the representation of women in engineering and IT, and I look forward to what the future has in store for CWIT!

IN THEIR OWN WORDS...

Student Experiences

SAMURDHI KALEGANA, **AFFILIATE**

I am interning at the **Siemens Building Technologies**, Baltimore as a draftsman. It's another great opportunity. At my internship, I am getting experiences in ordering building automation parts, visiting job sites, reading scopes, drawing Auto/CAD designs, and documenting issues and data using various MS Office program. Presently, I am involved at the UMBC Performance Arts building phase II, Upgrade at the UMBC Power plant, three new PG county schools and Maryland Live casino. We did sizing valves, designing air handling units etc. This is a HVAC internship through the UMBC Shriver Center.

MARIE WAGNER, **C10**

This past summer I interned at the **Applied Physics Lab** for my second year. I worked on a project called PRISM, which is a model that uses a predictive analytics engine to assess the future risk of a disease occurring in a specific geographic population. I was in charge of designing the user interface. I will be returning to APL over winter break.

MORGAN MADEIRA, **C8**

This past summer, I worked at **Google NYC** on the Google Prophet team, which develops the application that Google uses to manage their financial expenses. I added state management via bookmarkable URLs and worked on exposing the Prophet API. I got to learn about many Google technologies and also explore New York City!

SAMANTHA MCDONALD, **C11**

Because of CWIT resources, I was also able to become an Undergraduate **Research Assistant as a Freshman on Campus for the IS department**. I am currently working on research for visualization cluster's of search engines on mobile devices. The job started off with a lot of research done on my own and now has progressed in me coming up with my own interface designs based on the research I have done. Right now, I am writing my interface design on a program in order to come up with a computerized version of my design that lets the user test out my idea.

LILY JOHNSON, **C8**

For eleven weeks this past summer, I interned at the University of Akron in the Department of Polymer Science with Dr. Shi-Qing Wang as a participant in the **NSF Research Experience for Undergraduates (REU) program in Polymer Science and Polymer Engineering**. I had the opportunity to work on an experimental polymer science project, specifically about how polymer glasses behave in tensile extension under constant load for long time scales. At the end of the summer, I presented my work in a poster at the Northeast Ohio Undergraduate Research Symposium. My future goal is now to study polymer science in graduate school and I am currently applying to Ph.D. programs.

KATRINA CHAN, **C9**

This past summer, I worked at the **Atlantic Test Range of NAVAIR** under the employment of the Computer Sciences Corporation. I served as a student network administrator. During the winter break, I will be returning to the Atlantic Test Range to serve as a student systems administrator. I have enjoyed this internship experience (which I have held every summer and winter break since 2010) because people there have taught me technical skills and useful public speaking training.

ALEC PULIANAS, **C9**

I interned at **SAIC** in Columbia this summer. While there I worked on a group project with four other interns, one recent graduate, and two full time employee mentors. I programmed a FPGA in VHDL to act as a I2C bus controller and created a powerful data visualization tool so we could analyze the data the product was collecting and deduce trends. The internship helped me because I learned new skills while there that I know I will have classes on later, so now I feel ahead of the game. This internship was a great first step into industry and I would be open to returning this summer.

Internship, research, and service are three common elements of the CWIT experience. All members of the CWIT community are expected to actively engage in activities outside of the classroom that will allow them to enhance their well-rounded college experience. Read about some of their experiences here.

SHREYA MOHAN, **C8**

This past Summer I had the opportunity to intern with **T. Rowe Price in Owings Mills**. As an intern on the Emerging Client Capabilities team, I got to work on a wide variety of projects related to piloting iPad applications, prototyping for an iPad app, search engine optimization, and client account access. I used my research and development skills to find optimal solutions and provide recommendations to enhance client experience at TRP. I was able to learn more about the solutions development life cycle and how to best document and present information to business. What I find most appealing about the work I do at this internship is that I get to work with current technologies with a lot them being mobile technologies. I'm excited to be continuing my internship through the Fall and Spring semesters.



T-Site Scholars...

This fall eight transfer students joined the CWIT community as T-SITE Scholars (NSF funded S-STEM project DUE-1154300). This cohort was selected in May of 2012 and includes three computer engineering, three mechanical engineering and two chemical engineering majors. In addition to their strong academic backgrounds and passion for engineering and technology, this group of transfer Scholars brings a rich variety of diverse life experiences to the CWIT community. Like CWIT Scholars, the T-SITES attended the New Scholar Retreat in August and were assigned a faculty mentor in their majors who meet monthly with them to offer advice about how to successfully implement their academic and career plans. This fall they also participated in a weekly seminar in which they discussed forming effective study groups, updated their resumes, attended the UMBC Fall Career Fair, gained advice from the Shriver Center about obtaining internships, learned about undergraduate research opportunities, and learned more about stress management techniques from the UHS Peer Health Educators. In the fall of 2013 the T-SITE Scholars will be assigned an industry mentor and will participate in the CWIT Industry Mentoring Practicum developed by CWIT and Shriver Center staff members. Two more cohorts of 10 T-SITE Scholars will be recruited for the fall of 2013 and 2014 as part of this five-year NSF funded program. The application deadline for the 2013 cohort



is February 14, 2013 and more information is available on the CWIT website, www.cwit.umbc.edu/tsite.



Fall Event Highlights

CWIT Retreat

Incoming freshmen and T-Site Scholars participated in team-building activities (including College Park's challenge course) as a way to jump start their transition to UMBC! They were able to network with faculty and industry representatives!

"The CWIT Retreat is one of my favorite activities to help with because it is an opportunity to meet all the new freshman and share their excitement for the upcoming college semester. It was amazing to meet all the C11 Scholars, they are a really cool group!" Alec Pulianas (C9)

C-What? Day

This event gives Affiliates and Scholars the opportunity to bond over lunch, a friendly competition of Family Feud, and Minute-to-Win-It games.

Scholars Reception

This annual event allows all supporters of CWIT to connect with one other and reaffirm the CWIT mission. September's reception in the Skylight Room highlighted our graduating seniors and also included inspiring speeches by Provost Philip Rous and President Freeman Hrabowski.

"I enjoyed being part of the CWIT Scholars Reception in September. While preparing my talk, I reflected on my time as a CWIT scholar. I remembered all the mentoring, all the meetings, and all the fun I have had over the past three years as a member of CWIT." -Lily Johnson (C8)

2012 Grace Hopper Conference

Several of the CWIT Scholars attended the 2012 Grace Hopper Celebration of Women in Computing Conference in October, a program by the Anita Borg Institute for Women in Technology, in Baltimore.

"Grace Hopper was a totally exceptional experience. Everyone at the conference was friendly and shared a common experience. I had the opportunity for three on-site interviews, which offered great practice with technical interviews...In class, I will often feel like I'm the only one struggling or confused, and the reality that people aren't always as confident as they sound was great to hear from women working in the field...I came back from Grace Hopper enriched with other people's shared knowledge, and would totally go again. I'm extremely grateful to the Dean and the Chair of the department and Dr. desJardins for making it possible for me to attend." -Emily Scheerer (C9)



"I was amazed to see all of the companies essentially throwing job opportunities at students during the networking sessions. Even though I already had an offer from Google, I got to network with engineers and learn about opportunities at other companies." -Morgan Madeira (C9)

"Attending the conference has definitely been the highlight of my Fall semester. It was great meeting a bunch of new people from all around the country at the conference as well as networking with many of the biggest names in technology, like Facebook, Twitter, Apple, and Microsoft. I am currently pursuing internship opportunities in Silicon Valley with Lab 126, who creates the Amazon Kindle products, as well as Qualcomm for next summer after networking with several recruiters. I know getting to meet these recruiters in person was a huge opportunity and I am very optimistic in my chances of getting an internship on the West Coast, which is one of my dreams." -Alec Pulianas (C9)

CWIT Industry Mentoring Practicum

By Susan Martin, CWIT Associate Director

Mentoring is an integral component of the CWIT Scholar experience. From the beginning of the Scholars program, Scholars have been matched with an industry mentor in the fall of their junior year. In order to increase the impact of the industry experience on Scholars' career development and to improve the experience for our industry mentor volunteers, CWIT has made and assessed a number of intentional improvements to the program over the past two years. The most recent change made this fall was the piloting of a required, pass-fail graded, Industry Mentoring Practicum offered through UMBC's Shriver Center. The practicum curriculum was designed based on focus group and survey data collected from Scholars and industry mentors. Five one-hour long sessions were facilitated by Katie Glasser (former CWIT Asst. Director), Crystal Diaz (current CWIT Assistant Director), Susan Martin (CWIT), and Kerry Kidwell-Slak (Shriver Center). This fall's sessions included: **making the most of mentoring, communicating with your mentor; using ONET to identify career options; talking about your skills with employers; exploring your values and workplace culture.** 80% of the Scholars communicated with their mentor one or more times each month— up from the previous two years. Mentors shared information about their own career path, discussed their mentee's career path, talked about life/work balance and gave advice about how to successfully transition to a full-time position.

CWIT will be accepting applications for industry mentors for the 2013-2014 academic year on the CWIT website, cwit.umbc.edu/industry, through August 1, 2013. Matches will be made in late August with approximately 15 CWIT scholars—including eight CWIT T-SITE Scholars who are transfer students funded by an NSF STEM grant (DUE-1154300).

conGRADulations!

CWIT'S DECEMBER 2012 GRADUATES

Katelyn Toy (C8 CWIT Scholar)

B.S. Information Systems, Web Development Certificate; Completed research at UMBC; Interned with the Johns Hopkins University Applied Physics Laboratory; After graduation plans to pursue an M.S. in Information Systems at UMBC

"I am so glad that CWIT was a part of my college experience. I had the chance to make contributions to the community by serving on the CWIT Student Council and the opportunity to learn more about my field of interest from my wonderful industry mentor. Most of all, I got to experience all of these things with a great group of people!

Rachel Sweeton (C8 CWIT Scholar)

B.S. Computer Science; Interned with SAIC; After graduation plans to work and still considering job offers

"I got up to my blue belt in Taekwondo and had a blast being on the retreat committee the last 3 years. To all my fellow CWIT-ers: Don't give up!"

Men of CWIT

By Alec Pulianas (C9)



This semester the Men of CWIT gathered twice to discuss our roles in the CWIT Scholars community and what they can do to increase their effectiveness within the community. The Men of CWIT plan on increasing the visibility of men in the program by being a part of as many outreach events and information sessions as possible. The Men of CWIT also plan on hosting a "Meet the Men of CWIT" lunch at the start of Spring semester to invite new people into the community.

CWIT Affiliates Still Going Strong!!

By Dr. Susan Martin, CWIT Associate Director

The CWIT Affiliates Program connects women in UMBC engineering and technology majors to the CWIT community, with each other, and with industry role models through various events held throughout the academic year. While the program is focused on building community among the 489 women enrolled undergraduate engineering and IT majors (17% of all undergraduates), all students in the College of Engineering and Information Technology can participate. This fall there are a total of 121 Affiliates-- up from 33 in 2010. Students are officially counted as Affiliates if they register on our website, attend the annual Affiliates Retreat, or participate in the Affiliates peer mentoring program. This year, 37% of the Affiliates began at UMBC as transfer students and 90% are women.

The Affiliates Program offers numerous events each semester. During the first week of classes, the annual Welcome Back Ice Cream Social had 98 participants and provided Scholars and Affiliates a social environment in which to meet each other and others in their major. In September, 37 new freshman and transfer students were paired with a returning student (mentor) to help ease their transition as a new engineering or IT student through the Affiliates Peer Mentoring Program. At the Annual Affiliates Retreat in September, 25 new students obtained advice on what to expect in their major from returning Affiliates as well as what prospective employers are looking for in new graduates. Later in September, our Women in Technology (WIT) event, "The Art of Creating Opportunities"; provided a platform for Scholars and Affiliates to practice their networking skills. Thirty industry professionals from Harris Corporation, Northrop Grumman, Lockheed Martin, GE Aviation, GE Capital, Praxis Engineering, NSA, and Magellan Health Services were present to offer feedback to students about how they presented themselves and their goals. The evaluations of these events indicated a positive impact on students. One Affiliate said, "**Now I understand what recruiters are looking for: being able to talk about my resume and be enthusiastic. Know about the company ahead of time.**" With support from our corporate sponsors, the Affiliates Program creates visibility and valuable connections among women in the College of Engineering and Information Technology.

CWIT Living-Learning Community (LLC)

The CWIT LLC provides opportunities for women and men majoring in an IT or engineering discipline to bond with other students in the same field and create lasting support networks. First-year students on the CWIT LLC and first-year CWIT Scholars are required to enroll in a one-credit first-year seminar course during their first semester.



"Being the Resident Assistant of the CWIT LLC for the past two years has been one of the best experiences of my life. I have learned a lot about myself and have grown to be a more mature and responsible person. As the RA I am given the opportunity to get to know every last one of the residents and learn from them individually. Each resident is so unique and brings different, great qualities to the floor making it an amazing place to live and work. Throughout the past semester there have been many social events on the floor including game nights and nights where residents are able to come out and enjoy their favorite snacks. Early in September, I had a program titled "Why

So Cereal?" I polled the residents for their favorite kinds of cereal and we just ate cereal, talked, and enjoyed each other's company. Overall, this was a great semester and I have so much more planned for the spring!" -Heidi Gray, CWIT LLC-RA

"My experience living on the LLC has been to best. Living here was definitely the best decision I have made. Everyone here is really driven and focused on their work and that makes it easier for me to be just as focused a driven. It is also really great to know that I have such a large support team right down the hall if I have any personal or school work problems. They are also great for birthdays :) I know that for Beatrice's birthday, we decorated her door with streamers and candy and for Stephanie's birthday, we filled her room up with balloons." -Samantha McDonald, C11

CWIT'S FALL CALENDAR

August:

- Aug 10-12- CWIT New Scholar Retreat
- Aug 29 - Family Meeting

September:

- 5th - Ice Cream Social (open to the entire College)
- 10th - CWIT Table at Involvement Fest
- 15th - Affiliates Retreat & C-What? Day
- 20th - Annual Scholars Reception
- 24th - Big/LiIWIT Kick-Off!
- 29th - Women in Technology Series: The Art of Networking

October:

- 1st - Seniors Cohort Meeting
- 3-4 - Grace Hopper Conference
- 5th - UMBC Career Fair
- 7th - Big/LiIWIT Kick-Off Event
- 8th - Men in CWIT Meeting
- 22nd - Sophomores Cohort Meeting

November:

- 5th - Pick Your Classes Extravaganza!
- 12th - Men in CWIT Meeting

December:

- 3rd - CWIT Family Meeting
- 7th - First Annual Affiliates Peer Mentoring Party
- 1th - CWIT Student Council Holiday Party
- 21st - Undergraduate Commencement

Send newsletter submissions to
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The Center for
Women in Technology

Alumni News...

I successfully defended my PhD proposal this October at the University of Pennsylvania. The title was "The Science of Disguise," and the topic is enabling face recognition through disguise. I'm now gathering data for the thesis itself.
-Katie Gibson, C3

I've recently accepted a position with Northrop Grumman, and have been working for the past two months as a Health IT Production Support and Business Analyst.
-Priyanka Bushana, C7

I am moving to san Diego and will be an energy analyst/scheduler for Sempra Energy.
-Mariya Smolkin, C2

Thanks For Your Support!

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