Dear CSE Students:

Welcome to the fourth newsletter of 2018.

**Message from the UG Advisor:** Spring Break occurs in mid-March. Registration for summer AND fall begins at the end of March. Registration appointment times will be posted in OASIS. Check your registration time and prepare ahead. Flowcharts for your degree are available on the CSE website. Bring your flowchart with you when you come in for advising. Cross out the courses you’ve already completed. You can find information about advising hours including walk-in and schedule appointment availability on the CSE website (under Contacts). If you are planning to complete an internship for academic credit over the summer, please make sure to submit your contract and letter of offer before the end of summer registration. You can find a great deal of information about this and other matters by referring to the undergraduate section of the CSE website. Have a fun and safe Spring Break!

http://www.usf.edu/engineering/cse/undergraduate/index.aspx

**Message from the Grad Program Assistant:** If you are defending a thesis/dissertation, please make sure you are planning your defense date accordingly. April 25 is the last day to submit a late graduation checklist for Spring 2018.

Attached are announcements for the following (please note that this listing does *not* imply University or Department endorsement):

- USF Internal Pre-Application Nomination United Kingdom and Republic of Ireland Scholarships
- Research BootCamp
- FinTech at BlackRock one-day educational program for sophomores
- U.S. Department of Homeland Security (DHS) spring/summer 2018 Secretary’s Honors Program Cyber Student Volunteer Initiative
- Undergraduate assistant for developing JavaScript simulations
- USGS Student Work Opportunity – St. Petersburg Coastal and Marine Science Center
- Connecting Tampa Bay Students with Industry – TBEIA Engineering Internship Mixer

Regards,

Ken Christensen
Professor and Associate Chair of UG Affairs
USF Internal Pre-Application and Nomination
United Kingdom and Republic of Ireland Scholarships
Rhodes, Marshall, Gates-Cambridge and Mitchell Scholarships

These Scholarships are awarded to talented candidates who have not only demonstrated academic excellence, but also exceptional character, commitment to service, and potential for leadership in their chosen field.

Award Information

**UK Marshall Scholarship**: Covers one or two years of study at a university in the United Kingdom. Scholarships are awarded to seniors, graduate students, and alumni who graduated after April 2014 and are US-Citizens. A cumulative grade point average of at least a 3.7 is required. Candidates are assessed for academic achievement, leadership potential, and ambassadorial potential. Note: it is possible to pursue two Masters Programs, provided they align well with your goals at two different universities or at the same university in the UK.

Institutional Endorsement from the Office of USF President is required to compete nationally.

**Rhodes scholarship**: Covers two or three years of study at the University of Oxford. Scholarships are awarded to seniors, graduate students, and alumni who are at least 18 years of age but not yet 24. Candidates are assessed for academic achievement and leadership potential. Candidates must be citizens of one or the following countries or regions: Australia, Bermuda, Canada, Commonwealth Caribbean, Germany, Hong Kong, India, Jamaica, Kenya, Malaysia, New Zealand, Pakistan, Singapore, South Africa, Uganda, United States, Zambia, or Zimbabwe. Although there is no official cut-off on GPA, we require at least a 3.75.

Institutional Endorsement from the Office of USF President needed to compete nationally

**Gates-Cambridge Scholarship**: Awarded for post-graduate studies, including PhD, at the University of Cambridge to intellectually outstanding postgraduate students with a capacity for leadership and a commitment to improving the lives of others.

**George J. Mitchell**: Scholarship Up to twelve Mitchell Scholars between the ages of 18 and 30 are chosen annually for one academic year of postgraduate study in any discipline offered by institutions of higher learning in Ireland (study in Northern Ireland is not currently an option through the Mitchell Scholarship). Applicants are judged on three criteria: scholarship, leadership, and a sustained commitment to community and public service.

Institutional Endorsement from the office of USF president needed to compete nationally
Nomination and Pre-Application and Pre-endorsement review process: The Nomination and Pre-Applications will be reviewed by an 8-member review panel chaired by Dr. Sayandeb Basu, Director of the Office of National Scholarships (ONS). Chosen Candidates will be invited to an Interview at USF to choose the University nominees for each award. Candidates will be contacted by ONS, after reviews of pre-application, regarding their status.

Pre-Application: Requirements

For Faculty Nominators: A 2-step process

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Please send the nominee’s name, the email address of student(s) you are nominating and the award you are nominating the student(s) for to <a href="mailto:onsnominations@usf.edu">onsnominations@usf.edu</a> with subject line “USF-nominations-2018”, by Friday March 23rd, 2018</td>
</tr>
<tr>
<td>2.</td>
<td>Please alert the student(s) you nominated, and give them this form, ask them to fill in the Pre-app, and answer the questions below, and email the completed form to <a href="mailto:onsnominations@usf.edu">onsnominations@usf.edu</a></td>
</tr>
<tr>
<td>3.</td>
<td>For Students who are Self-Nominating Themselves (See Applicants must-submit, immediately following) please send all requested materials to <a href="mailto:onsnominations@usf.edu">onsnominations@usf.edu</a></td>
</tr>
</tbody>
</table>

Applicant must submit the following items by email to onsnominations@usf.edu, by Friday March 23rd

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Completed application form, below (if handwritten, please print legibly) with signature</td>
</tr>
<tr>
<td>2.</td>
<td>Short answer essays</td>
</tr>
<tr>
<td>3.</td>
<td>A current resume or Curriculum Vitae (CV) Including Academic, Leadership and Extracurricular Activities</td>
</tr>
<tr>
<td>4.</td>
<td>A current unofficial transcript</td>
</tr>
</tbody>
</table>

Application Form and Questionnaire:

We are looking for sophomores (graduating 2021) juniors (graduating 2020), and seniors (graduating 2019)

Sophomores and freshmen are pipeline Candidates, and will be engaging and Training at ONS for two years before application. Seniors will be trained this summer

<table>
<thead>
<tr>
<th>Name:</th>
<th>Major and Minor</th>
<th>Cumulative GPA:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Year in College (by Date of Graduation):</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research Area</th>
<th>Research Topic</th>
<th>Research Adviser/Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Which You are Applying For</td>
<td>Intended Program(s) of Study</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------------</td>
<td></td>
</tr>
<tr>
<td>Marshall Scholarship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhodes Scholarship (Oxford Univ. Only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mitchell Scholarship (Ireland)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gates-Cambridge (U. Cambridge Only)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Questionnaire: Each Essay below is limited to no more than 300 words**

1) Why do you want and need to study in the UK or Ireland? How will studying in the UK or Ireland have an impact on your future career? What are your professional and academic aspirations? What issues, needs, or problems do you hope to address? Specify how your academic program and graduate education plans will assist you in achieving your goals beyond graduate school.

2) Please describe any previous or current research experience. Include the length and duration of your work, organization and departments where the research took place, who advised your work, and presentations or publications of the results.

3) Describe one specific example of your leadership – what issue did you address, how did you get others to follow you, what changed because of your involvement? Please include details on your role with the activity and the impact of your involvement.

4) Why do you want and need to study in the UK or Ireland? If you are a sophomore, knowing something about study in the UK is a good starting point, which you can build upon, so don’t shy away from answering this. Do some research, if you must.

5) Please tell us why the specific UK/Ireland graduate program(s) listed above are of interest to you. Include a brief description of the degree program and indicate any specific faculty or researchers with whom you would like to work. Also explain why you have chosen the particular institution(s).

6) Please share any additional personal or educational information which may be relevant to your candidacy for a UK/Ireland nomination, or what you would like the committee to know.
Research BootCamp

CONTACT INFORMATION FOR THIS OPPORTUNITY IS PROVIDED BELOW.

The Research BootCamp® is an intensive, one-week program designed to assist women doctoral students, post-docs, and junior faculty members in developing the skills necessary for success in the academy. Historically, women have faced a number of challenges in the academy and this program assists women in their preparation to combat the historical dominance of men in higher education. Senior scholars, statisticians, and theorists facilitate workshops intended to help doctoral students conceptualize and design key components of their dissertations including: Research Question and Hypothesis Development, Literature Review, Conceptual Framework Development, Instrumentation, Methodology, and Data Analysis. Senior scholars will also mentor post-doctoral and junior faculty members in the development of manuscripts for publication, and clarification of a future research agenda. In addition to the research component, each participant will be paired with a senior USF scholar to help cultivate a mentoring relationship.

The Research BootCamp will be held Monday, May 7th through Friday, May 11th from 7:30 am – 6:00 pm each day. The week-long program will begin with an Opening Reception on Sunday, May 6th at 6pm for all participants. If you are interested in participating in the Research BootCamp please complete the application found here: [2018 Research BootCamp® Application](#). The application will close on Sunday February 25th. The Research BootCamp is supported with institutional resources made possible by a number of contributors and supporters, participants do not have out of pocket expenses.

If you have questions feel free to contact Dr. Devona F. Pierre at dfpierre@usf.edu or (813) 974-3971.
FIND YOUR FUTURE FORUM

Learn how to jump start your career in FinTech at BlackRock’s one-day educational program for college sophomores

ARE YOU ELIGIBLE TO ATTEND?
We are seeking talented sophomores from diverse groups. Applicants should meet the following criteria:
• Women or those who identify as Black, Hispanic, Native American, LGBTQ+, or disabled
• Strong academic credentials (all academic disciplines)
• Expected graduation date between December 2019 and June 2020
• Demonstrate interest in financial services and/or technology industry

WHAT WILL YOU LEARN?

DISCOVER A NEW WORLD
Come explore the ever-changing and exciting world at the intersection of finance and technology. Learn about how BlackRock brings together the best of a technology pioneer and a financial leader within the worlds of Technology, Investments, Relationship Management & Sales, Analytics & Risk, Advisory & Client Services and Corporate Functions & Business Operations.

BUILD YOUR RESUME
Discover what it means to be a fiduciary, learn about our innovative technology and hear from professionals in the industry. Gain that competitive edge and enhance your development through financial, professional and technology workshops.

INVEST IN YOUR FUTURE
Get focused early, develop your network, and uncover strategies and communication essentials to utilize during your career search. Acquire the tools to succeed in interviews and on the job.

BlackRock is a global investment firm, trusted to manage more assets than any other. Our clients are companies, governments, foundations, and millions of individuals saving for retirement, their children’s educations, and a better life. We are passionate about providing products and services that can help them build a strong financial future. Our employees from around the globe are students of the market and students of technology, respectfully anti-bureaucratic, and innovative at the core.

BlackRock combines the energy and fast-paced nature of a startup with the security and resources of a leading global asset manager. Our employees embrace some of the world’s most complex financial challenges, and know the work that we are doing is having a real impact – not only on our clients, but on the industry as a whole. No matter what your level, we offer our employees real responsibility from day one – and we’ll be looking to you for your unique perspective to help us challenge the status quo.

At BlackRock, we’re looking for students with potential – passionate future colleagues who are looking to make an impact and grow both professionally and personally.

APPLY TODAY:
Visit careers.blackrock.com/campusrecruitment and click the Events tab to apply for our April events in New York or San Francisco.
Applications are due no later than March 4 at 11:59PM EST.
E-mail campus.careers@blackrock.com with any questions or concerns.
FIND YOUR FUTURE FORUM

Learn how to jump start your career in FinTech at BlackRock’s one-day educational program for college sophomores

ARE YOU ELIGIBLE TO ATTEND?

We are seeking talented sophomores from diverse groups. Applicants should meet the following criteria:

- Women or those who identify as Black, Hispanic, Native American, LGBTQ+, or disabled
- Strong academic credentials (all academic disciplines)
- Expected graduation date between December 2019 and June 2020
- Demonstrate interest in financial services and/or technology industry

APPLY TODAY:

Visit our website and click the Events tab to apply for our April events in New York or San Francisco

Applications are due no later than March 4 at 11:59PM EST.

E-mail campus.careers@blackrock.com with any questions or concerns.
FIND YOUR FUTURE FORUM

WHAT WILL YOU LEARN?

DISCOVER A NEW WORLD
Come explore the ever-changing and exciting world at the intersection of finance and technology. Learn about how BlackRock brings together the best of a technology pioneer and a financial leader within the worlds of Technology, Investments, Relationship Management & Sales, Analytics & Risk, Advisory & Client Services and Corporate Functions & Business Operations.

BUILD YOUR RESUME
Discover what it means to be a fiduciary, learn about our innovative technology and hear from professionals in the industry. Gain that competitive edge and enhance your development through financial, professional and technology workshops.

INVEST IN YOUR FUTURE
Get focused early, develop your network, and uncover strategies and communication essentials to utilize during your career search. Acquire the tools to succeed in interviews and on the job.

BlackRock is a global investment firm, trusted to manage more assets than any other. Our clients are companies, governments, foundations, and millions of individuals saving for retirement, their children’s educations, and a better life. We are passionate about providing products and services that can help them build a strong financial future. Our employees from around the globe are students of the market and students of technology, respectfully anti-bureaucratic, and innovative at the core.

BlackRock combines the energy and fast-paced nature of a startup with the security and resources of a leading global asset manager. Our employees embrace some of the world’s most complex financial challenges, and know the work that we are doing is having a real impact – not only on our clients, but on the industry as a whole. No matter what your level, we offer our employees real responsibility from day one – and we’ll be looking to you for your unique perspective to help us challenge the status quo.

At BlackRock, we’re looking for students with potential – passionate future colleagues who are looking to make an impact and grow both professionally and personally.
The U.S. Department of Homeland Security (DHS) is pleased to announce the launch of the spring/summer 2018 Secretary’s Honors Program Cyber Student Volunteer Initiative for current undergraduate and graduate college students. This program is a part of the Department’s efforts to build a cybersecurity talent pipeline by working with secondary, post-secondary institutions and other key partners in academia and the private sector. Through the Secretary’s Honors Program Cyber Student Volunteer Initiative, students are able to learn about the DHS cybersecurity mission by completing hands-on cybersecurity work and building technical experience in key areas such as digital forensics, network diagnostics and incident response.

In the 2018 Secretary’s Honors Program Cyber Student Volunteer Initiative cycle, more than 80 student assignments are available at over 40 local DHS field offices across the country. Participating DHS Components include Customs and Border Protection (CBP), Federal Emergency Management Agency (FEMA), Office of Intelligence and Analysis (I&A), Immigration and Customs Enforcement (ICE), National Protection and Programs Directorate (NPPD), Management Directorate/Office of the Chief Information Officer (OCIO), Management Directorate/Office of the Chief Security Officer (OCSO), Office of Policy/Cyber, Infrastructure and Resilience Policy, Transportation Security Administration (TSA), United States Coast Guard (USCG), United States Citizenship and Immigration Service (USCIS), and United States Secret Service (USSS).

The Secretary’s Honors Program Cyber Student Volunteer Initiative application period opened on February 15, 2018 through https://www.zintellect.com/Posting/Details/4099.

Please note this application observes a rolling deadline. The review and selection process will start on February 23, 2018. Applications will be considered in the order in which they are received and continue until all selections are made or until the official deadline, March 8, 2018. We encourage you to submit your application early to increase your chances of being selected.

We would greatly appreciate it if you would encourage your students to apply. For more information, please email SRDI_Recruiting@hq.dhs.gov.

U.S. Department of Homeland Security

Confidentiality Notice: This e-mail message, including any attachments, is intended only for the person(s) or entity(ies) to which it is addressed and contains information that may be confidential, legally protected, privacy relevant, proprietary in nature or otherwise protected by law from disclosure. If you received this message in error, you are hereby notified that reading, sharing, copying or distributing this message, or its contents, is prohibited. Please telephone or reply to me immediately and delete all copies of the message.
Undergraduate assistant for developing JavaScript simulations

NEW: Undergraduate assistant for developing JavaScript simulations for 5-10 hours/week at $20/hour for Summer 2018

Dr. Kaw is looking for one computer science or information technology undergraduate to write JavaScript simulations for a course in numerical methods for Summer 2018 and beyond.

Initial Appointment:  May 2018 - August 2018

Eligibility: The applicant must be well versed with mathematical, graphical and plotting aspects of JavaScript and must have used it to write web-based programs. No experience in numerical methods is expected. Applicant should not be graduating before December 2018.

How many hours: 5-10 hours/week.

Pay: $20/hour.

Contact Dr. Kaw via email first at kaw@usf.edu.
USGS STUDENT WORK OPPORTUNITY
St Petersburg Coastal and Marine Science Center

Development of Python code for semi-automated extraction of features and calculation of change from 3D surfaces

USGS PI: (POC): Cheryl Hapke, St Petersburg Coastal and Marine Science Center, 600 4th St South, St Petersburg, FL 33701, 727-502-8068; chapke@usgs.gov

The temporary job will involve working with USGS researchers to develop a new technique to quantify change to coastal slopes on the US West Coast utilizing 3D datasets, specifically geospatial Digital Elevation Models (DEM). The resulting tool will provide an interactive way to semi-automatically determine the occurrence of coastal cliff failures from DEMs through time and where identified, quantify volumetric changes in upper and lower sections of the cliff slope.

We have developed a conceptual model of the approach, the metrics we require, and a workflow to generate data and calculations. We are seeking assistance from a programmer that can manipulate 3D geospatial data in a semi-automated way through the use of Python, with the intention of creating datasets that are compatible with ESRI products. The workflow will include automating the creation of a slope surface from a DEM, delineating regions of high slope (cliff face), calculating volumes of the upper vs lower cliff, and comparing volumes from datasets of different time periods.

Minimum requirement is at least 2 years of college education, and proficiency in Python programming and Excel worksheets. Experience with ArcGIS API for Python a plus but not required.

The employment length is anticipated to be 5 months, beginning in May 2018 until the end of Sept 2018 and may be extended subject to funding availability. Hours per week are dependent on student availability but can be up to 40 hours per week during summer months (June – Aug) and part-time in late spring and early fall.

Hourly pay is dependent on educational level and work experience, as per established federal government pay standards, and will range from $15.38 - $31.54. Interested students should send their resume to Cheryl Hapke (chapke@usgs.gov) with a statement of interest.
Connecting Tampa Bay Students with Industry on March 27th – TBEIA Engineering Internship Mixer

In keeping with our ongoing effort to connect Tampa Bay Engineering and Technical students with regional employers and work opportunities, the “Tampa Bay Engineering Internship Alliance” (TBEIA) will host our next semi-annual Internship Mixer in Tampa on Tuesday, March 27th from 6:00 to 8:15 PM.

This is a great opportunity for students and industry to make valuable contact and to promote internships and apprenticeships for Tampa Bay Area Engineering and Technology students. Whether your interests lie in Engineering (any discipline), Machining, Electronics, Design/Drafting, Software Development or IT Systems, we welcome your participation!

**Tuesday, March 27th, 6:00 PM - 8:15 PM**

**Location:** Kelly Services  
4631 Woodland Corp Blvd, STE 117  
Tampa, FL 33614

**Students:** Register online at:  
https://tinyurl.com/yb4ey35h

**Companies &/or Sponsors:** Register online at:  
https://tinyurl.com/ycdg6ra3

**What to expect:**  
Participating companies will provide a two-minute introduction to their business followed by the opportunity to network with up to 100 engineering students who are seeking internships.

- Refreshments will be served.  
- 6:00-6:30 Networking and Refreshments  
- 6:30-7:15 Company Presentations  
- 7:15-8:15 Networking Continues

The event is FREE to attend for all companies and engineering students. If your company wishes to sponsor the bi-annual internship mixer please mail your $100 check payable to "SME Chapter 159" to Don Patz, SME Chapter 159 Treasurer, 13157 88th Ave, Seminole, FL 33776. Email your company logo to robin.hussong@mccst.com.
Please join our TBEIA LinkedIn Group: https://www.linkedin.com/groups/12089405

Thank You to Our Sponsors and Event Partners!

· Actron Engineering
· Aerosonic Corporation
· Alakai Defense Systems
· ASME Florida West Coast Section
· ASME
· Cast & Create
· DCR Engineering
· DRS Technologies
· Kelly Services
· L3
· Master Cut Tool
· McCormick Stevenson
· Nautical Structures
· PharmaWorks
· Plasma-Therm
· SME Tampa Bay
· SMT (Southern Manufacturing Technologies)

Please let me know if you have any questions. I’m happy to help with the registration process and look forward to seeing you there!

Robin Hussong, robin.hussong@mccst.com
Executive Assistant and Tampa Bay Engineering Internship Alliance Coordinator
McCORMICK STEVENSON
ENGINEERING + DESIGN