Friday | October 19th, 2018

11:00 am - 1:00 pm	Registration Open		*1st Floor*
1:00 pm - 2:30 pm	Opening Keynote Address		*Auditorium*
Session	**Track 1** ***Room 3026***	**Track 2** ***Room 3018***	**Track 3** ***Room 3034***
1. 2:45 pm - 4:00 pm	Tutorial: Assignments to Promote Diversity and Accessibility	NSF Workshop: CyberPaths	Student Papers 1
2. 4:15 pm - 5:30 pm	Faculty Papers: Special Topics	NSF Workshop: CyberPaths	Student Papers 2
6:30 pm - 9:00 pm	Banquet Dinner		*2nd Floor / Ticket Required*

Special Topics (Session Chair: Diane Murphy)

- *Expanding Communication Opportunities in Algorithms Courses,* **Robin M. Givens**
- *A Comparison Of Perceptions of CS Majors and Non-CS Majors Regarding Email Security*, **Virginia Eaton, Jose Cordova, Lon Smith, Tyler Greer**
- *Results from a Professional Learning Session Using Computer Programming Activities and the S2 Robot To Push Middle and High School Computer Science, Math, And Science Teachers To Generalize Geometry Concepts,* **Mark Terwilliger, Jay Jackson, Cynthia Stenger, James Jerkins**

Student Papers 1: (Session Chair: Cynthia Knott)

- *A Hybrid Computing Implementation of a Mersenne Prime Number Search Based on Java and MPI*, **Timothy Murphy**
- *A-Noncing the Use and Performance of Hashing Algorithms*, **Sean Sanders**
- *Network Performance Comparison of Various Containers vs Hypervisors*, **Christopher Shore, Casey Hymiller, Xinliang Zheng**

Student Papers 2: (Session Chair: Susan Conrad)

- *UI Preferences for Programming Education*, **Blessing Leonard, Giovanni Vincenti**
- *Understanding Prerequisites For College Courses: A Visual Solution*, **Kazi Zunnurhain, Eric Heitman**
- *Apply Indicator Based Reinforcement Feedback to Provoke Students' Growth Mindset in Programming Activities*, **Zhiyi Li, Mukund Babu, Manniam Rajagopal**

CyberPath

“The goal of the project CyberPaths is the diversification and broadening of the STEM talent pipeline in cybersecurity in predominantly undergraduate and liberal arts schools. This is achieved by the creation of a curriculum that accommodates students of different levels of computer literacy with focus on experiential learning. This project mitigates the challenges undergraduate institutions currently face in the cybersecurity area, for example, a tight computer science curriculum and the inability to support the expensive infrastructure required for cybersecurity education. To address these challenges, first, we attract a diverse population of students by introducing cybersecurity topics through multiple paths of study and engagement. Students will be introduced to cybersecurity concepts through stand-alone course modules and laboratory exercises injected in general education liberal arts courses. Interested students can study further by taking two cybersecurity focused courses and cybersecurity capstone projects created by this project. Second, we use the Global Environment for Network Innovation (GENI) infrastructure in the development of hands-on labs and the capstone project assignments. GENI offers an affordable cloud solution to undergraduate institutions that lack the infrastructure to support high overhead computer labs. In this talk, I will present the Cyberpaths project and briefly introduce the GENI labs and general education modules that we have developed. Then we will complete a couple of short GENI labs, starting from ‘Hello GENI’ and moving to a simple ‘Denial of Service’ lab.”

Saturday | October 20th, 2018

8:00 pm -10:15 pm	Breakfast			*2nd Floor*
Session	**Track 1** ***Room 3026***	**Track 2** ***Room 3018***	**Track 3** ***Room 3034***	**Track 4** ***Room 3074***
1. 8:30 am - 9:45 am	Faculty Papers: CS	NSF Grant Workshop	Workshop: Using PLCC to implement Java interpreters in a Programming Languages course	Industry Presentation: Cloud computing and Running code on Google Cloud
2. 10:05 am - 11:20 am	Faculty Papers: Student Experience	Panel: Engaging HBCU Faculty in Project-Based Learning in Silicon Valley	Poster Session (*3rd Floor*)	
3. 11:30 am - 12:45 pm	Faculty Papers: Natural Language Processing	Tutorial: Creating A Culture And Environment For Active Learning Success	Lightning Talks / Birds of a Feather / Hot Topics	
1:00 pm - 2:00 pm	Luncheon and Awards			*2nd Floor and Auditorium*

CS (Session Chair: Donna Schaeffer)

- *Scaffolding Assignments: How Much Is Just Enough?*, **James Vanderhyde**
- *Less-Java, More Learning: Language Design for Introductory Programming*, **Zamua O. Nasrawt, Michael O. Lam**
- *A Novel Events-First Approach For CS1 with Java*, **Mark F. Russo**

Student Experience (Session Chair: Charley Tichenor)

- *Project Based Learning in Computer Science: A Student and Research Advisor's Perspective*, **John McManus, Philip Costello**
- *Student Perceptions of Computing and Computing Majors*, **Jeffrey Stone**
- *TAROT: A Course Advising System for the Future*, **Joshua Eckroth, Ryan Anderson**

Natural Language Processing (Session Chair: Faleh Alshameri)

- *Using Bayesian Spelling Correction To Improve Students' Skills in a Data Structures Class*, **Reva Freedman**
- *Revisiting an Educator's Dilemma: Using Natural Language Processing To Analyze The Needs of Employers and Inform Curriculum Development*, **Nathan Green, Xiang Liu, Diane Murphy**
- *Cross-Lingual Genre Classification using Linguistic Groupings*, **Hoang Nguyen, Gene Rohrbaugh, Ph.D.**

Industry Presentation

Cloud computing and Running code on Google Cloud

LEARNING OBJECTIVES

- Develop a solid understanding of what cloud computing is
- Understand various products in Google Cloud
- Know how to run code on our serverless platforms

DESCRIPTION

Cloud computing has taken over industry by storm, yet there's not enough new college grads who know enough about it. This session begins with a vendor-agnostic, high-level overview of cloud computing, including its three primary service levels. This is followed by an introduction to Google Cloud, its developer platforms, and which products serve at which service levels. Attendees will learn how to run applications on Google Cloud serverless platforms (in Python & JavaScript; other languages are supported) as well as hear about the teaching & research grants available to engineering faculty for use in the classroom or the lab. Whether you're professor, researcher, university IT staff, grad student, or a lecturer, you'll know how to run code on Google's cloud and help enable the next-generation cloud-ready workforce.

SPEAKER INFO

Wesley Chun, Sr. Developer Advocate, Google Cloud

BIO

WESLEY CHUN (@wescpy) is the author of Prentice Hall's bestselling "Core Python" (corepython.com) series, co-author of "Python Web Development with Django" (withdjango.com), and has written for Linux Journal, CNET, and InformIT. In addition to being a software engineer & Developer Advocate at Google focused on Google Cloud, and one of the hosts of the G Suite Dev Show (goo.gl/JpBQ40), he runs CyberWeb (cyberwebconsulting.com), a consultancy specializing in Python training. Wesley has over 25 years of programming, teaching, and writing experience, and was one of the original Yahoo!Mail engineers. He holds degrees in CS, Math, and Music from the University of California, is a Fellow of the Python Software Foundation, and Adjunct Computer Science faculty at Foothill College.

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Programming Competition Schedule
Saturday | October 20th, 2018

7:30 am - 8:30 am	Team registration
8:30 am - 9:30 am	Orientation and practice session
9:30 am - 12:45 pm	Contest
12:45 pm - 1:30 pm	Lunch
1:30 pm - 2:00 pm	Awards

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