The Department of Computer Science
Computing News

Award Recipients 2012

UNDERGRADUATE

Distinguished Academic Achievement

<u>BS Computer Science</u>
Joseph Cortes
Meghan Clark
Shane Halder
David Scherzinger
Henry Kim

Outstanding Academic Achievement

<u>BS Computer Science</u>
Aaron Foltz
Mark Feghali
Nevinder Mann

<u>BS Applied Computer Science</u>
Alan Weiderman

GRADUATE

Distinguished Academic Achievement

<u>MS Computer Science</u>
Stephen Donnelly
James Fowler
Len Matsuyama
Katherine Russell

<u>MS Information Security and Assurance</u>
Burns Mijanovich
Andrew Van Vleet

<u>MS Information Systems</u>
Minu Hariharan
Ka-Loon Tung

this issue

Graduation Celebration and Awards Dinner

The Computer Science Department Annual Graduation Celebration and Awards Dinner was held on May 16, 2012 in Dewberry Hall. It was attended by approximately 150 guests. Dr. Sanjeev Setia, Chair of the Computer Science Department, hosted the event and presented awards, along with several CS faculty.

The evening festivities began with honoring Dr. Daniel Menasce on the eve of his stepping down as Senior Associate Dean of the Volgenau School of Engineering. Since taking over as Associate Dean for Graduate Studies in 2005, he has done a tremendous job and instituted many important changes. The CS Department recognized Dr. Menasce for his service as the VSE Senior Associate Dean and as a valued Computer Science faculty member.

This year's graduating PhD students were also honored. The graduates were individually welcomed to the stage by their dissertation directors. Each was invited to give a brief summary of their dissertation and their plans for the future. This was followed by a few congratulatory words from their directors.

As the last PhD student left the stage the awards portion of the evening began, spotlighting the numerous accomplishments of our undergraduate and graduate students. First announced was our Academic Achievement Awards, presented to high achieving graduates. Only the best and brightest students are awarded this recognition. Next was the presentation of the student awards. The first student award recognized the recipient of the

Excellence in Undergraduate Writing in Computer Science. This annual award, given by the Writing Across the Curriculum Program in cooperation with University departments, acknowledges the exceptional written work of remarkable GMU students.

The following series of awards were presented to the Department's outstanding Teaching Assistants, both Graduate and Undergraduate, for their exceptional service. The evening concluded with the presentation of the CS Departmental Awards, acknowledging the special contribution of our faculty and staff in the success of our department.

A full list of Award recipients can be found in this newsletter.

Faculty & Student Spotlight

Dr. Daniel Menasce

Dr. Daniel Menasce gave the keynote address at the WPerformance Conference, Brazilian Computer Society on July 18, 2012 in Curitiba, Brazil.

While in Brazil, Dr. Menasce also visited the University of Sao Paulo (USP) and the Pontifical Catholic University of Rio de Janeiro (PUC-Rio) to discuss the use of Brazil's Science without Boarders program to bring students to the department.

Congratulations to **Meghan L. Clark,** for receiving the 2012 Volgenau School of Engineering Outstanding Undergraduate Student Award. Meghan graduated from Mason Summa Cum Laude with a BS in Computer Science and a minor in Mathematics.

Congratulations to PhD students **Bill Shelton** and **Nan Li** who won the Best Student

Paper Award and the Best Presentation Award at the Testing: Academic & Industrial Conference Practice and Research Techniques (TAIC-Part), April 21, 2012, Montreal, for their paper co-authored with Profs. Paul Ammann and Jeff Offutt.

Yao Liu

Congratulations to **Yao Liu**, for receiving the 2012 Volgenau School of Engineering Outstanding Graduate Student Award. Yao, a PhD candidate in the Department of Computer Science, is currently working on her dissertation and is expected to graduate in Spring 2013.

In June, **Dr. Jim Chen** was at Dalian Jiaotong University in China to discuss Mason's *US-China 1+2+1 Dual Degree Program*.

Dr. Mark Pullen was in Europe for three weeks on C4I Center projects. In June, he was with the NATO Modeling and Simulation Group, working to demonstrate a capability for military coalitions, consisting of forces from different nations, to interoperate their software systems for command and control with their simulation systems.

Also, in June Dr. Pullen presented a tutorial for synchronous online teaching technology and participated in a competition for non-commercial education technology at the IASTED 2012 Conference on Computers and Advanced Technology in Education (CATE) in Napoli, Italy.

In July, Dr. Pullen presented a paper at the ACM Special Interest Group in Computer Science Education (SIGCSE) 2012 conference on Information Technology in Computer Science Education (ITiCSE) in Haifa, Israel.

Congratulations to **Dr. Angelos Stavrou** for his promotion to Associate Professor with Tenure.

Welcome New Faculty

The CS Department will have two new Faculty members joining us in the Fall. The CS Department welcomes **Yotam Gingold** and **Chris Kauffman** who will join the faculty this Fall.

Prof. **Gingold** received his PhD from New York University in 2009 and is currently a postdoctoral researcher at Columbia University and Rutgers University. His research interests are in the areas of computer graphics and game design. He will be joining the Department as an Assistant Professor.

Prof. **Kauffman** is completing his PhD at the University of Minnesota. His research interests are in bioinformatics and machine learning. He will be joining the Department as a Term Assistant Professor.

Dr. Amarda Shehu

Congratulations to **Dr. Amarda Shehu** who will receive a NSF CAREER Award for her project entitled "Probabilistic Methods for Addressing Complexity and Constraints in Protein Systems." The CAREER award is the National Science Foundation's most prestigious award in support of junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research.

RoboPatriot

Dr. Sean Luke and the GMU student members of the RoboPatriot team attended the 2012 Robocup competition in Mexico City, Mexico. The RoboPatriots are a team of three humanoid robots presented by the Department of Computer Science at George Mason University. The RoboPatriots compete in the kid-size humanoid division of RoboCup, an annual international autonomous robotic soccer competition.

Dr. Alex Brodsky traveled to Greece to participate in the 16th IFIP WG8.3 Inter-national Conference on Decision Support Systems, and present papers.
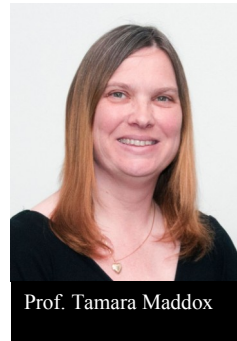
He also worked at NIST developing a Process Analytics Framework for Sustainable Manufacturing Initiative, helping analysis and decision making in that area.

Dr. Arun Sood was a contributing speaker at the Fourth Workshop on Cyber Security and Global Affairs , on June 9 -21, 2012 in Barcelona Spain. This workshop was jointly organized by The International Cyber Center at George Mason University and ES-CERT at Polytechnic University of Catalonia (UPC). Dr. Sood is also a member of the organizing committee for this event.

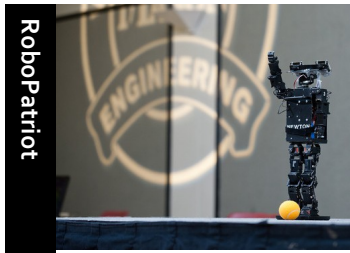In June, **Dr. Ken De Jong** lectured at the Doctoral Summer School in Iasi, Romania.

In the first week of July, he attended and presented at the Genetic and Evolutionary Computation Conference 2012 in Philadelphia, PA

Prof. Tamara Maddox

Congratulations to **Prof. Tamara Maddox** who is one of the winners of the Mason Teaching Excellence awards for 2012. Prof. Maddox teaches a range of computer science courses, particularly those that involve ethics and the law.

She is a former software engineer and licensed attorney, who weaves her courtroom experiences, personal anecdotes and current events into class lectures to illustrate how course topics are relevant to students' daily lives. Computer Science majors are familiar with one of her signature courses, CS 306, *Ethics and Law for the Computing Professional* in which Prof. Maddox builds real-world examples, opportunities for student interaction, and public speaking into an assignment in which students conduct a mock trial.

Mason Teaching Excellence Award Winners

Award Recipients

STUDENT AWARDS

Excellence in Undergraduate Writing in Computer Science
Aaron Foltz

Distinguished UTA
Aaron Foltz

Outstanding UTA
Kevin Andrea
Rachel Galang
Dale Gartman
Rachel Itskowitz
Fritz Reese

Distinguished GTA
Katherine Russell

Outstanding GTA
John Balint
Kshitz Bhattarai
Mohamed Elsabagh
Sahil Khanna
Kevin Leach
Nan Li
Upsorn Praphamontripong
Tanwistha Saha
Sunitha Thummala

DEPARTMENT AWARDS

Outstanding Young Researcher
Amarda Shehu, PhD

Outstanding Teacher
Huzefa Rangwala, PhD

Outstanding Adjunct
David Wheeler

Outstanding Service
Ami Motro, PhD

Faculty Advisor of the Year
Pearl Wang, PhD

Outstanding Staff
Ryan Lucas

1st Annual Celebration of Student Scholarship and OSCAR Mentor Award

The Computer Science undergraduate members of the Students as Scholars Program were invited to present their research at the inaugural Celebration of Student Scholarship on May 7, hosted by the Office of Student Scholarship, Creative Activities, and Research. The purpose of this event was to showcase exceptional undergraduate research and to honor excellent faculty through the OSCAR Mentor Award.

Fifty students from various disciplines, along with their Mentors, attended the event held in the lobby of the Center for the Arts. Students spoke with interested guests about their work and their appreciation for the *Students as Scholars* initiative.

The new OSCAR Mentor Award was presented during the celebration to recognize the outstanding work done by the Mentors with their undergraduate research students. Among those nominated for this year's award were CS faculty members, Dr. Huzefa Rangwala and Dr. Amarda Shehu. When asked about the *Students as Scholars* event, Dr. Amarda Shehu said *"It was wonderful and a proud moment, I must add, to see the undergraduate student (Sameh, in my case) you have closely nurtured and mentored over time passionately talk about his/her research and communicate it to the audience. I caught myself smiling at various times during his presentation. It was a rather fulfilling experience."*
Beyond just challenging and supporting their students, OSCAR Mentors are actively fostering scholarship and collegiality among undergraduate students and faculty members.

For information about the Students as Scholars initiative, the OSCAR Mentor Award and The Undergraduate Research Scholars Program please visit the Students as Scholars Website http://oscar.gmu.edu/

Students as Scholars

Luke Faraone
AMPED: A System for Usable Authentication
Mentor: Robert Simon

Giannina Garcia
Objective Assessment of Pitch-Matching with a Haptic Interface
Mentors: Lynn Gerber, Zoran Duric

Sameh Saleh
An Evolutionary-inspired Probabilistic Search Algorithm to Structurally Characterize the Native State of a Novel Protein Sequence.
Mentor: Amarda Shehu

Charles Sweet
Modeling the Human D2 Dopamine Receptor
Mentor: Huzefa Rangwala

Stewart VanBuren , Daniel Greenberg , Owen Kish
Tank Game
(CS426 Project Demo)
Mentor: Jyh-Ming Lien

Alan Wiederman
Tactical Ninja Assault
(CS426 Project Demo)
Mentor: Jyh-Ming Lien

Post-Convocation Reception

On May 17, 2012, following the annual Volgenau School of Engineering Convocation, graduating students and their families made their way to the atrium of the Long and Kimmy Nguyen Engineering Building for the Department of Computer Science Post-Convocation Reception. The event was the first of its kind for the department and by all accounts was a wonderful success. The turnout was great and the atmosphere celebratory.

The graduates and their families met with CS faculty and staff, toured the Nguyen Engineering Building and en- -joyed some light refreshments. The conversations were of the future, the choices and opportunities to come. Some graduates spoke of seeking employment, while others spoke of furthering their education. However, no matter what their future plans, the only plan for that day was celebrating.

The CS Post-Convocation Reception was so well received, it is certain to become an annual event. The Department looks forward to celebrating with future graduates in the years to come.

Graduates by the Numbers

This year's graduating class included 286 students from the CS Department.

12 BS Applied Computer Science

71 BS Computer Science

68 MS Computer Science

51 MS Information Systems

28 MS Information Security and Assurance

40 MS Software Engineering

2 PhD Computer Science

13 PhD Information Technology

1 Engineer Degree Information Technology

PhD Recipients

INFORMATION TECHNOLOGY

Ahmed M. Elkhodary
Dissertation Title:
A Learning-Based Approach for Engineering Feature Oriented Self-Adaptive Software Systems
Director: Sam Malek

Julie Street Fant
Dissertation Title:
An Approach to Building Domain Specific Software Architectures Using Software Architectural Design Patterns
Director: Hassan Gomaa

Anyi Liu
Dissertation Title:
Development of a Source Mobile GPS Tracking and Management System
Director: Jim X. Chen

Juan Luo
Dissertation Title:
Machine Learning in Decision Guidance Systems: Models, Languages and Algorithms
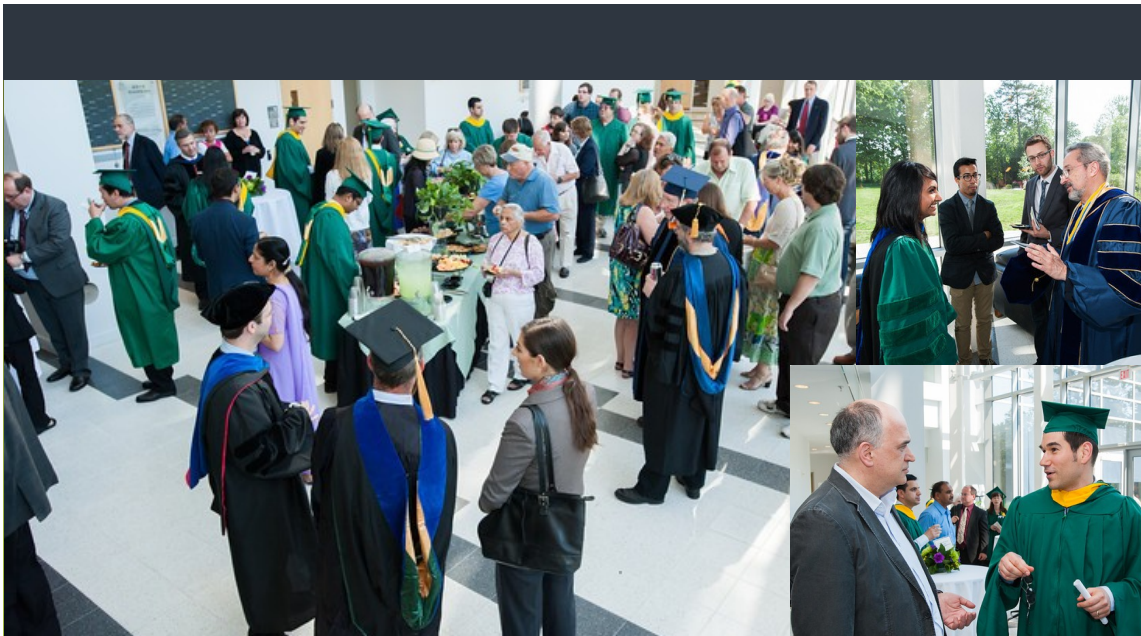Director: Alexander Brodsky

Thomas H. Rozenbroek
Dissertation Title:
External Labeling as a Framework for Managing Objects
Director: Edgar H. Sibley

Faisal M. Sibai
Dissertation Title:
Defeating Insider Attacks via Autonomic Self-Protective Networks
Director: Daniel A. Menasce

Jiang Wang
Dissertation Title:
Hardware-Assisted Protection and Isolation
Director: Angelos Stavrou

ENGINEER DEGREE in INFORMATION TECHNOLOGY

Lima Beauvais
Project Title:
Atomic Section Analysis Tool
Director: Jeff Offutt

Chair's Message

This issue of Computing News lists the students, faculty and staff who were recognized at our annual awards dinner for their outstanding achievements. Congratulations to all the award winners and also to the 15 graduating PhD students and their dissertation advisors!

Another story in this issue highlights the participation of CS undergraduate students in research and scholarship. There is an increased focus at Mason on undergraduate research and I am proud to say that several CS faculty members have been very active as research mentors. Indeed Professors Pearl Wang, Jan Allbeck and Huzefa Rangwala recently received a grant from the Office of Student Scholarship, Creative Activities and Research (OSCAR) at Mason for exploring how undergraduate research and scholarship can be better integrated into our CS curriculum. More on this grant in a future issue of this newsletter.

In other faculty news, we bid a fond adieu to Joao Sousa who will be moving to Bosch Research in Pittsburgh. He will be missed! On a happier note, as reported in this newsletter, we have two new faculty members joining us this Fall – Yotam Gingold from Columbia University and Chris Kauffman from the University of Minnesota. We also welcome back Danny Menasce, who has served as Senior Associate Dean of the Volgenau School for the last several years. Finally, congratulations to Angelos Stavrou who has been promoted to Associate Professor with tenure!

Computing News Issue 6