

CS KICKSTART

MAY 1, 2017

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TIAN RECEIVES 2017 UTSA PRESIDENTIAL AWARD FOR DISTINGUISHED RESEARCH ACHIEVEMENT

BY KIMBERLY WARD



Dr. Qi Tian, professor of Computer Science is presented the 2017 Research Achievement award by Interim President Dr. Pedro Reyes and Vice President for Academic Affairs Dr. C. Mauli Agrawal.

Dr. Qi Tian, professor of computer science, received the 2017 UTSA President's Distinguished Achievement award for Research Achievement.

This award is to recognize, encourage and reward faculty who have conducted high-quality, high-impact research that shows distinct promise for national and international recognition and substantial contribution to the faculty member's field. The award ceremony was held April 13th at the University Excellence Awards Ceremony.

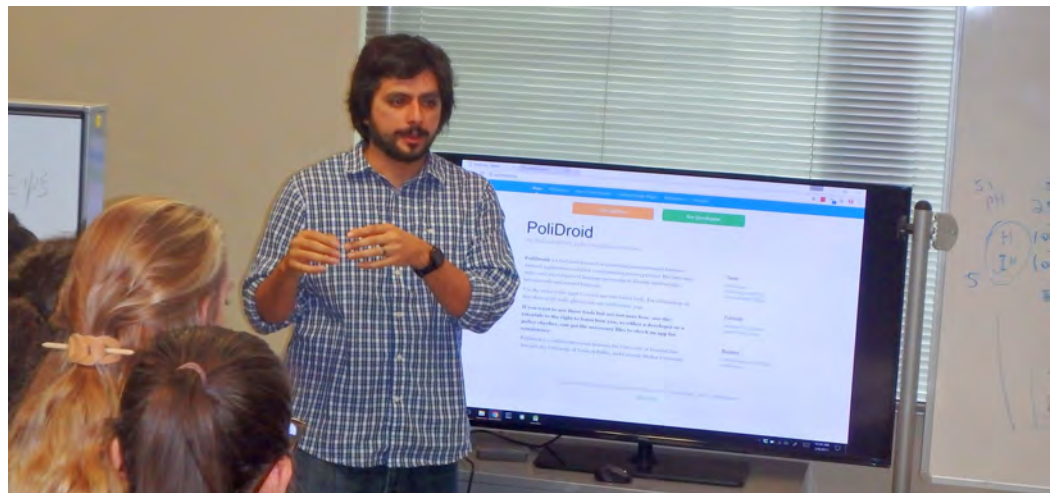
Tian's research interests are in the area of multimedia information retrieval and computer vision. His extensive work in multimedia applications has made contributions to the field ranging from fundamental framework, algorithms, and practical solutions.

Dr. Tian has done profound study on the semantic-gap problem for application in image retrieval. Recently, one of his survey papers multimedia search re-ranking has been accepted for publication in the high-impact ACM Computing Surveys journal. Dr. Tian is the one of the foremost authorities on multimedia information

Continued on page 2

"Tian Receives 2017 UTSA Research Award"

FEATURED PHOTO: PHD STUDENTS DEMONSTRATE PRIVACY POLICY ANALYSIS APP TO LOCAL HS STUDENTS



UTSA PhD computer science student Rocky Slavin demonstrates PoliDroid, a tool suite focused on identifying inconsistencies between Android applications and their corresponding privacy policies, to visiting students from Health Careers High School on March 9th. Slavin conducts research in Dr. Jianwei Niu's Software Engineering & Formal Methods Laboratory



DID YOU KNOW...?

The Motion Picture Academy refused to nominate *Tron* (1982) for a special-effects award because, according to director Steven Lisberger, "The Academy thought we cheated by using computers"

Source:
Glen Helfand, "Tron 20th Anniversary"
San Francisco Gate 2002

TIAN RECEIVES 2017 UTSA RESEARCH AWARD CONTD.



Dr. Qi Tian, professor of
Computer Science at UTSA

retrieval, a topic that is extremely important owing to the increase in the use of video surveillance and video sharing.

An active proponent of student academic and professional development, Tian is a dedicated mentor to his students as well as an active volunteer for professional organizations such as Institute of Electrical and Electronics Engineers (IEEE) and Association for Computing Machinery (ACM).

Due to his prestigious achievements, Tian received IEEE Fellow status for his contributions and impact to the multi-media information retrieval field. He is the first department-grown IEEE fellow in the history of the Computer Science department at UTSA.

Recently, Tian was listed among the 2016 Top 10 Most Influential Scholars in Multimedia by Aminer.org.

UTSA HONORS MILESTONE YEARS OF SERVICE

A number of faculty and staff in the department of Computer Science were recognized for their milestone years of service to the University of Texas at San Antonio (UTSA) at the 2017 University Excellence Awards ceremony on Thursday, April 13.



Dr. Kay Robbins
Professor
Computer Science
45 Years of Service



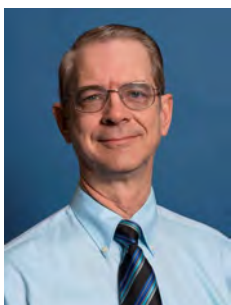
Dr. Jeremy Cockfield
Research Software Developer I
Computer Science
5 Years of Service



Dr. Rajendra Boppana
Professor and Chair
Computer Science
25 Years of Service



Kimberly Ward
Program Coordinator
Computer Science
5 Years of Service



Dr. Gregory White
Professor
Computer Science
15 Years of Service

The Department of Computer Science would also like to thank all of the faculty and staff for all the incredible work, dedication and commitment you have exhibited throughout the years. We appreciate all you do for the program, for our students, and for the university.

DR. TOM BYLANDER RETIRES AFTER 24 YEARS OF SERVICE AT UTSA



Dr. Tom Bylander,
Associate Professor of
Computer Science at UTSA

Dr. Tom Bylander, associate professor of computer science at the University of Texas at San Antonio (UTSA), has announced his retirement scheduled for May 2017.

After receiving his B.S. in Mathematics and Computer Science from the University of South Dakota in 1979, Bylander earned his Masters and Ph.D. in Computer and Information Science from Ohio State University in 1980 and 1986, respectively. He was a faculty member at Ohio State from 1986 to 1993 before joining the computer science department at UTSA.

As the undergraduate advisor for UTSA computer science students, Bylander made a significant impact to countless UTSA computer science students.

His research in artificial intelligence is concerned with the study of efficient algorithms for planning and machine learning and with applications of artificial intelligence to medical domains.

His main focus has been on the analysis, design, and testing of machine learning algorithms. His analysis work has focused on the analysis of linear learning algorithms, in particular, the behavior of the perceptron update rule in the presence of noise. The analyses have led to the design of more sophisticated perception learning algorithms for noisy examples.

FEATURED PHOTO: GRADUATE STUDENT ICE CREAM SOCIAL SPRING 2017



From Left to Right: Maryam Zand (PhD-CS), Sharvari Komajwar (PhD-CS), Hamidreza Moradi (PhD-CS), and Kimberly Doan (MS-CS).

The Computer Science Graduate Student Association (CSGSA) hosted an ice-cream social for UTSA CS graduate and PhD students. The CSGSA organizes events like these to encourage networking amongst students and provide recreational activities for students between studying and research. Additionally, CSGSA coordinates with other related organizations to facilitate recruitment information sessions, host computing related speaker sessions, and contests.

FINISH IN FOUR GRADUATION INITIATIVE

UTSA's Department of Computer Science is committed to student success and supports the university's "Finish in Four" initiative that aims to help students graduate on time. We met with three current computer science students who are graduating in four years or less to find out how they were able to plan their degree and to give advice for prospective and current UTSA students.



Comfort Olorunlero, Senior Computer Science major (Information and Security concentration)
Graduation Date: Fall 2017

What helped you most in planning your degree? I really took advantage of the resources I had. I talked to my academic advisor to plan out all my courses and forced myself to work hard to meet those goals. I met students in classes and in ACM to know which professors to take and when to take certain classes. Also the tutors were really helpful when I was a freshman.

Why did you decide to graduate in four years or less? I'm an international student, so we pay higher tuition than regular students do. In my country, it's hard to get funds out. The CS department has this in-state scholarship that I was able to use but it's only 4 years. If I stayed here longer, I probably wouldn't have been able to use that in-state tuition scholarship.

Advice for students: Get involved! Being at UTSA, you're not just a student. [CS] students get the opportunity to explore what they like, do fun projects like Hackathons, help mentor incoming students, and meet with high-tech organizations like the NSA. Having network connections, you keep an eye out for one another and help each other.

What are your plans after graduation? I have my internship in the summer semester, then I graduate in the Fall and will hopefully get an offer for a job.



Cassidy Matousek, Junior Computer Science major (minor in astrophysics)
Graduation Date: Spring 2018

What helped you most in planning your degree? My advisor is amazing! Every time I go see her, I say what I want to change and she makes it work in the 4 year time span. I came in to CS originally and [in my] second semester I decided to minor in astrophysics. My advisor figured out which courses to take that would fit my schedule. I also studied abroad in London and my advisor was able to get me course credit. The school I wanted to go to didn't have CS courses, but my advisor was able to make those credits work with my degree plan so I could graduate on time.

Why did you decide to graduate in four years or less? To save money. I have a scholarship through UTSA and it only lasts 4 years so that was a huge motivation.

Advice for students: Take as many AP credits as you can before you get to college. Also, take the Math Readiness test if you can. If I hadn't passed that, I would have had to taken Pre-Cal and that would have set me a semester behind. I was able to go straight into Calculus I and was able to save time and money.

What are your plans after graduation? I'm considering doing a master's degree or applying for companies where you can work for them and they pay for your master's degree.



Connor Romeros, Senior Computer Science major (Software Engineering concentration)
Graduation Date: Spring 2017

What helped you most in planning your degree? When I met with my advisor, I had originally planned to graduate in 4 years with Computer Engineering. When I switched to Computer Science, we had to reorganize my plan to make sure I was going to graduate on time. My classes like Intro to EE couldn't transfer over, so I had to take a few more courses to catch up.

Why did you decide to graduate in four years or less? At Orientation there was a lot of "4 years or less" talk so I had that in mind. Also saving money from not having to take an extra semester.

Advice for students: Students should go see their advisor to see what you need to take and see which courses are offered in which semester. I've had friends who've been delayed because of that. DegreeWorks on ASAP shows us what courses we've taken, courses we've registered for, and shows what percentage of our degree that we've completed and any outstanding catalog requirements. It's like a degree progress tracker.

What are your plans after graduation? I interned with USAA last semester and after my 10 week internship, they offered me employment in June.

EDITORIAL: CLASSIC READING SUGGESTIONS FOR EVERY CS BOOKSHELF

BY RICHARD MURPHY

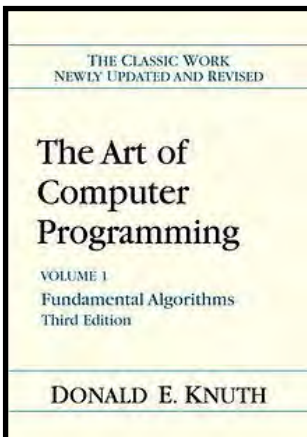


Richard Murphy, Lecturer of Computer Science at UTSA

Sometimes when I glance at my bookshelves holding all the computer science books I have acquired over the years, I speculate which ones I would keep if I could only keep a dozen books. Would it be the first computer book I bought back in 1968, Daniel McCracken's *Guide to FORTRAN IV Programming*? In a more theoretical vein, I would definitely consider Aho, Hopcroft, and Ullman's *The Design and Analysis of Computer Algorithms*.

This thought experiment leads directly to the idea of The Bookshelf of Classic Works from the Computer Sciences, which are works that I think all serious students and teachers in the discipline should have on their bookshelf. Of course any lists of classics, say in English literature, is going to create controversy. The same holds for cinema. Is *Pulp Fiction* a classic movie in the same sense as *Citizen Kane*? I hope the readers of this article will weigh in with their own suggestions and commentary.

I will group the books into three rather broad categories: Theory, Programming Languages, and Implementations. For a book to make it onto the Bookshelf, it must show innovation and insight, excellent writing, and be influential in the computer sciences. So, without further ado, here are the first three books I would put on The Bookshelf.



Theory

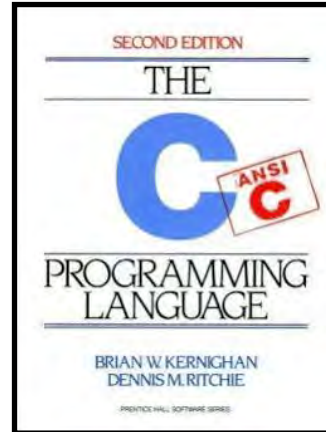
***The Art of Computer Programming, Volumes 1, 2, & 3* by Donald Knuth (1968)¹**

Volume 1 of this series was my textbook for Algorithms and Data Structures at UT Austin back in 1973. This book incorporates a thorough study of algorithms that operate on data structures along with Knuth's love of discrete mathematics.

Knuth invents his own machine language (MIX) in which to show

actual implementations of the algorithms with the memory and register constraints of the computers of the late 1960s. No wimpy pseudo-code hand waving for Dr. Knuth.

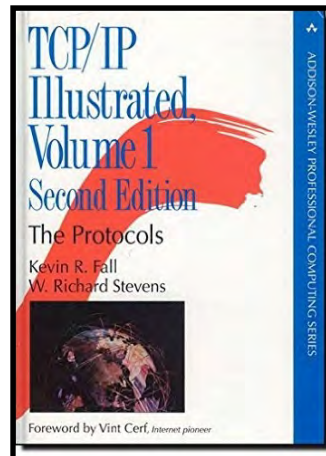
I still refer to these volumes from time-to-time, especially Volume 2 on Seminumerical Algorithms, which is invaluable when testing or writing a random number generator. Knuth's quirks are interesting, such as his classification of the problems at the end of each chapter as "simple" up to "research problem," most of which are still research problems.



Programming Languages

***The C Programming Language* by Brian Kernighan and Dennis Ritchie (1978)**

What has become almost a standard feature of any introductory book on any programming language, the "Hello World" program, began here. The C language was quite a paradigm shift when it was invented, not following the problem specific model of prior languages. This slim volume is conversational in style and walks the reader through most of the features of C in a lucid way. Dennis Ritchie is the designer of C and Kernighan was a key player in Bell Labs creation of UNIX, so these authors were "present at the creation" of the modern world of computer languages and operating systems. Without this work, I doubt that Stroustrup would have created C++ and object-oriented languages would have been delayed. If you want to write a book to teach a programming language and introduce some design principles, you could not do better than to emulate this work.



Implementations

***TCP/IP Illustrated, Volume 1. The Protocols* by W. Richard Stevens and Kevin R. Fall (2nd ed., 2012)**

Unfortunately for those who study networks, W. Richard Stevens died in 1999 just when the Internet and network applications were entering their main growth phase. He was the author of the bestselling Unix Network Programming in 1990 and he continued to dissect the TCP/IP protocol stack behavior in a complete manner that has not been surpassed. The first edition of TCP/IP

Illustrated is the ultimate tour guide through the major protocols of the Internet and Kevin Fall has done a great job of updating the original work. James Kurose and Douglas Comer can teach you the theory but Stevens tears apart the engine and shows you what every single part does. Anyone writing network applications will find this book valuable and far more enlightening than reading and interpreting protocol RFCs.

Which computer science books do you consider classics? Drop an email to the editor with suggestions and give us a short review of why you found the book significant.

cs@utsa.edu

¹Newer editions and other additional volumes of Knuth's *The Art of Computer Programming* series are available.

CS ANNUAL SPRING PICNIC 2017



Students enjoying the sunshine at Bonnie Conner Park.



Racers try to pass an egg from one spoon to another.



Guests were invited to bring their families to enjoy the festivities.



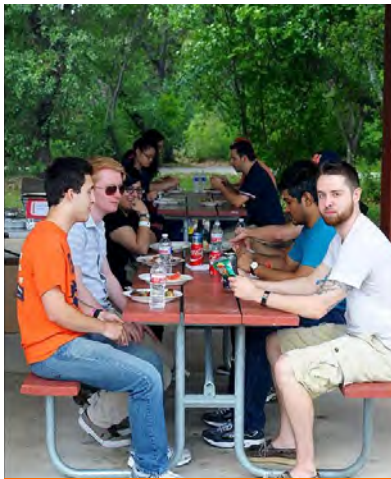
Faculty and students get to relax and socialize outside the classroom.



Attendees tried to see how high they could stack the giant jenga.



Along with catered barbeque, many guests brought desserts to share.



Students enjoyed the break before gearing up for finals.



Adults and kids dug in to barbeque, watermelon, and other picnic fare.

With partly cloudy skies and temperatures in the mid 80s, the computer science community came together on April 8th for the annual Spring Picnic.

The UTSA Department of Computer Science hosts its annual picnic for students, faculty, and staff, and their families to take a break from studies and enjoy a day of recreation in the park. The picnic, held at Bonnie Conner Park, is a special way of bringing together the program community to relax and celebrate the end of the academic year.

Guests enjoyed free barbecue, tried their hand at croquet, tested their balancing skills with giant jenga, participated in an egg spoon race, and competed in a scavenger hunt. Winners of the competitive games received official 2017 Fiesta UTSA medals as prizes.

A special thanks to the Computer Science Graduate Student Association (CSGSA), the Association for Machinery student chapter (ACM), the Association for Machinery Women's student chapter (ACM-W), and the department staff for putting this event together.



The winners of the spoon egg races and scavenger hunt received 2017 UTSA Fiesta medals.

ROWDYHACKS COMPETITION 2017

Students gathered over Easter weekend to compete in the second annual Rowdyhacks hackathon hosted by the Association for Computing Machinery (ACM) and Association for Computing Machinery (ACM-W) student chapters at UTSA.

Hackathons are events where individuals form teams to create, design, and develop projects. Teams had 24 hours to build applications, games, or other creative programs and present a working product to a panel of guest industry judges from CPS Energy and Southwest Research Institute (SwRI).

51 UTSA students signed up this year to form teams of up to five members and build any type of project their hearts desired during the time limit. All participants who attended were provided food, energy drinks, and 2017 event shirts. Members of winning teams received prizes such as the Raspberry Pi 3, Amazon Echo Dot, and Vic Tsing I-800 Mechanical Gaming Keyboard.

Rowdyhacks 2017 Winning Teams

1st Place — **PasswordAnalyzer**

Daniel Larsen
Luke Taylor
Taylor Brauer

2nd Place — **Trump Talk**

Cassidy Matsousek
Zachary Faddis
Pablo Valero
Sitansh Rajput
Hector Zarate

3rd Place — **Hackathon Description Optimization**

Trase Westbrook
Andrew Sanetra

To view copies of the submitted team projects, visit
<https://rowdyhacks-2017.devpost.com/submissions>

Photos courtesy of UTSA ACM student chapter



Go here >>>
for all archived newsletters >>>



Featured Job Opportunities!

#	Employer	Job Title	Type	Application Deadline	How to Apply
1	EAI Technologies	Software Innovator (Developer)	Full time	May 01, 2017 at 11:00am	Apply via UTSA handshake job board
2	Next Step Systems	Software Engineer	Full time	May 03, 2017 at 11:59pm	Apply via UTSA handshake job board
3	Amazon	Prime Now Associate	Part time	May 07, 2017 at 1:59am	Apply via UTSA handshake job board
4	Dell, Inc	Technical Support Agent	Full time	May 11, 2017 at 4:00pm	Apply via UTSA handshake job board
5	Rackspace	Sourcing Manager	Full time	May 13, 2017 at 11:59pm	Apply via UTSA handshake job board
6	Mitratech	Summer Internship in Houston	Internship	May 28, 2017 at 11:59pm	Apply via UTSA handshake job board
7	Futurex	Entry-Level Software Developer	Full time	May 31, 2017 at 5:00pm	Apply at www.futurex.com/careers/category/career-positions . Accepting resumes for other positions even if no specific opening is listed. Email to careers@futurex.com
8	NSS Labs Inc	QA Automation	Internship	June 29, 2017 at 10:00am	Apply via UTSA handshake job board

VISIT UTSA'S CAREEREDGE WEBSITE

<http://careercenter.utsa.edu/>

FOR MORE GREAT OPPORTUNITIES LIKE THESE!!!

WE WANT
TO HEAR
FROM
YOU

What do **YOU** want to see covered in this newsletter?

Do you know of upcoming CS related events?

Do you have any success stories to share?



Kimberly Ward
Editor

Email suggestions and topics to the editor at cs@utsa.edu