LATEST NEWS

We Welcome Our Robot Tour Guides

Take a walk inside the entrance to UC San Diego's Atkinson Hall and you might be greeted by a robot made of two cardboard boxes stacked one upon the other, complete with a signature smiley face. BoxBot, as the bot is called, works with his counterpart TritonBot, a robot with a fully functional body, in the hopes of one day becoming a lobby receptionist for the building. But the 'bots are also being used for more sophisticated purposes: to collect information about how humans respond to robots.

The robots are “chaperoned” by several graduate students, including Electrical and Computer Engineering Ph.D. student Shengye Wang of the UC San Diego Contextual Robotics Institute, which is based in Atkinson Hall. Wang is working with Professor Henrik Christensen to create robots that have the long-term memory autonomy (the ability to remember faces and names, for example) required for interaction with humans. Read more

Local Entrepreneur Donates $225K for UC San Diego Effort to Document Underwater Cave

The Cultural Heritage Engineering Initiative (CHEI), based at the University of California San Diego, has received $225,000 from San Diego-based entrepreneur Brian Strauss to enable digital visualization technologies that make it possible to see cultural heritage sites and artifacts in entirely new ways – like “the La Brea tar pits without the tar.”

The funds – which contribute to the Campaign for UC San Diego – will go primarily toward financing expeditions and field work at

Wondering what all the fuss is about with regard to cryptocurrencies and blockchain?

QIIS company Nanome will host a public event on April 4 in The Basement at UC San Diego on "Decrypting Crypto and Blockchain Technology." QI affiliate and COO of Nanome Keita Funakawa will moderate this multidisciplinary conversation featuring blockchain security experts, token sale veterans and traditional business executives.

From the event description: "Blockchain and cryptocurrency industries have sprung out seemingly out of nowhere in 2017. From $20,000 Bitcoins, $1200 Ethereum, to new acronyms like ICOs what does this all mean? And how can start ups take advantage of it? Find out at this event from cofounders of Nanome, Steven McCloskey and Keita Funakawa who just sold over $8M worth of their own Ethereum tokens. Joining them will be author and venture capitalist Greg Horowitt and Airbitz cofounders Paul Puey and Scott Morgan to discuss what
Mexico's Hoyo Negro underwater cave site, where the remains of a young Paleo-American woman (dubbed "Naia" by researchers) were found last year alongside fossils of extinct Ice Age megafauna such as saber-tooth cats and huge Shasta ground sloth.

Information Theorists: The 'Physicists' of Data Flow

Somewhere out there, a computer is trying to predict what you'll do next.

Put like that, it sounds ominous, but data mining and prediction models are what get you a ride any time you need one or help you find the love of your life. There's a demand for this kind of thing, and where there's demand, there's data.

Picture electrical engineers, mathematicians and computer scientists with hard hats and wrenches and you get a metaphorical idea of what information theorists do. Information theory – the back-end "plumbing" of network computing – is what makes data flow. Information theory is, as it sounds, theoretical, but the Information Theory and Applications workshop, held each spring in San Diego (and a huge draw with typically more than 500 participants) also focuses on the ways these theories can be applied, be it in business, finance, computer science or robotics.

UC San Diego Grad Students Build a Robotics Community

Caleb Christianson was trying to track the motion of his eel-like robot through water. It wasn't going particularly well. The robot that he'd built was moving just fine, but the image analysis was dragging. The Ph.D. student was trying to brute force the process – looking at images of his robot frame by frame, pixel by pixel.

In other QIIS news, VirBela has received media attention for the virtual reality platform it has provided to the Stanford University Graduate School of Business for its new LEAD certificate. The story was featured in the Financial Times and Poets & Quants for Executives.

Did you know QI publishes a twice monthly email newsletter about research communication? Research Refined is your guide to the best tips, techniques and news for communicating research in a way that can be easily understood. Subscribe today!

Congratulations to our partners at the Jacobs School of Engineering for being ranked the 12th best engineering school in the nation (7th best among public universities) by U.S. News and World Report.

QI congratulates affiliated Professors James Friend (Mechanical and Aerospace Engineering) and...
“It was a computer vision application,” said Christianson, a UC San Diego nanoengineering Ph.D. student. “And I didn’t have any experience in that.”

What he did have was the right audience. He outlined these challenges in an informal research talk he gave to a group of other graduate students at UC San Diego who are interested in robotics. A student in the audience suggested a much better way to track the robot using MATLAB, a popular engineering programming software.

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Student Changemakers Fight Human Trafficking

Although slavery is commonly thought to be a thing of the past, human traffickers generate billions of dollars in profits from holding millions of people against their will throughout the world, including the United States. The International Labor Organization estimates there are nearly 21 million victims of human trafficking globally, second only to drug trafficking as the most profitable form of transnational crime.

“Human trafficking is widespread and it’s neglected,” said Ashley F. Halabi, a graduate student at UC San Diego’s School for Global Policy and Strategy (GPS). “It occurs is every country in the world. Many people have met victims of human trafficking and don’t even know it.”

Halabi and a group of other GPS graduate students teamed up to host the second annual Intercollegiate Convention Against Modern Slavery at UC San Diego. The conference with student leaders across the nation took place March 2 to 4, where they convened to discuss what is currently being done and what can be done to fight modern slavery. The conference was sponsored by Social Impact & Innovation, which is based at the Qualcomm Institute.

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A Campus Hub for Data Science

The UC San Diego Design Lab, which is based at QI, has welcomed Eric Hekler as a new affiliated professor. Eric will work at the intersection of his interests in behavioral science, human-centered design, public health and control systems engineering.

In other news, Design Lab students recently visited leading Silicon Valley companies (including Adobe, Wish and Salesforce).

QI Social Impact + Innovation Director Naila Chowdhury recently moderated a panel on "Accelerating Women's Leadership for Exponential Impact" as part of the Impact
A new institute at UC San Diego, which is being celebrated today at a campus dedication, is building on the university's strengths of multidisciplinary collaboration and data science to allow researchers across the campus to incorporate data science into their respective disciplines to better understand and make predictions about the world around us.

The cross-disciplinary Halıcıoğlu Data Science Institute, or HDSI, will become the campus hub for data science. It will help train students in the latest data-science techniques and transform the research of scholars who are now increasingly limited in making progress in their disciplines because of the need to make sense of the massive amounts of data generated from their research. Read more

**UC San Diego Hosts Its First Virtual Reality, Augmented Reality Hackathon**

Anish Kannan, a fourth year computer science student at UC San Diego, had no interest in virtual reality (VR) until one fateful hackathon four years ago.

“When I was a freshman, I went to a virtual reality hackathon and it pretty much changed my college career,” Kannan said. “I was a freshman. I barely knew how to program anything, but just wanted to go learn something new. I’ve done 15 or 16 hackathons since then, and it’s my chance to give back now.”

Kannan and the VR Club at UC San Diego gave back by organizing and hosting HackXR, the university’s first virtual, augmented and mixed reality hackathon, planned and run entirely by undergraduate students. XR stands for extended reality, a catchall for virtual, augmented and mixed reality. Read more

**FUNDING OPPORTUNITIES**

**UC San Diego Acceleration and Proof-of-Concept Programs**
Funding Amount: $10,000 to $50,000
**Deadline:** March 26, 2018

**NIH Small Business Grant**
**Development of Socially-Assistive Robots (SARs) to Engage Persons with Alzheimer's Disease (AD) and AD-Related Dementias (ADRD), and their Caregivers**
Funding Amount: $350,000 for 1 year, Phase I; $2 million
UPCOMING EVENTS

**QI Mixer**
Date: Thursday, March 22, 2018  
Time: 3:30- 5 p.m.  
Location: Calit2 Theater, Atkinson Hall - UC San Diego  
Read more

**Free QI Tour -- SOLD OUT**
Date: Friday, March 23, 2018  
Time: Noon  
Location: First-floor lobby of Atkinson Hall  
Read more

**Performing Code Stream**
Date: April 5, 2018  
Time: 5:00pm  
Location: Atkinson Hall - Calit2 Gallery - UC San Diego  
Speaker: Shelly Knotts  
Read more

**Research Expo 2018**
Date: April 19, 2018  
Time: 1:30pm - 6:30pm  
Location: Jacobs School of Engineering - UC San Diego  
Read more

**Performing Code Live**
Date: June 7, 2018  
Time: 7:00pm - 9:00pm  
Location: Atkinson Hall - Calit2 Auditorium - UC San Diego  
Speaker: Shelly Knotts  
Read more

**Additional QI events**

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