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LOUISIANA STATE UNIVERSITY

Self-described 'Hacker' and Cybersecurity Expert Joins LSU Faculty

(Source: LSU Media Relations)

BATON ROUGE – New LSU faculty member Golden Richard developed an obsession with how computers work that has grown into a career as a leading cybersecurity expert. He identifies as a "hacker," which he defines as someone who is deeply interested in understanding how things work and comes up with creative ways to look at systems.

Because operating systems, viruses and malware are continuously evolving, hacking takes a lot of work and tenacity. It's not as glamorous or mysterious as depicted in film. Richard believes the only way you can be successful and satisfied while cracking viruses is if you love it. You have to be willing to never give up.

"You have to immerse yourself, and it has to be something you're intensely interested in," he said.

It requires not only tenacity, but also deep knowledge of operating systems and low-level programming.

"I've always had an interest in how systems work and eventually turned it into a career in cybersecurity," Richard said.

He grew up as computers were developing from their infancy into the revolutionary powerhouses they are today. When he was a child growing up in New Orleans, he stumbled upon a Radio Shack store on Magazine Street just four blocks from his house. The store manager befriended him and let him spend hours tinkering with the store's computers to learn how they work.

"I would arrive at the store and wait for it to open in the morning and program the computers there until the store closed that evening," Richard said.

At night after the store closed, Richard remembers filling legal notepads with computer code that he'd try at the store the next day.

When he was 16 years old, Richard started programming for money, which helped him finance and purchase his first floppy disk drive for $600. He then went on to major in computer science at the University of New Orleans, or UNO. He pursued his master's degree and Ph.D. in computer science from Ohio State University. He now joins the LSU faculty at the Division of Computer Science and Engineering and the Center for Computation & Technology, or CCT.

"CCT is something magical. It's an amazingly dynamic community in a state-of-the-art facility," he said.

Richard will be teaching the university's first class on reverse engineering where students take apart and analyze malicious software and viruses to study them. Students will see how systems are exploited and how they can be protected.

"In today's world of massive information technology and interconnectivity, it's crucial to know how security breaches and computer viruses work. Dr. Richard's expertise is invaluable, and we're excited to have him join our faculty at LSU," said CCT Director J. "Ram" Ramanujam.

Governmental and national security agencies have become increasingly interested in reverse engineering because of its complexity and potential threat.

"I've been working in cyber-related projects for the U.S. Department of Defense and the intelligence community of over 20 years. I know good when I see it and Golden is great! He is a world-class researcher whose name is recognized in the most respected circles. I am proud to have him on our Transformational Technologies & Cyber Research Center and at LSU," said Jeff Moulton, executive director of the LSU Transformational Technologies & Cyber Research Center.

The responsibility of someone working in cyber security is to create a strong defense; however, defense is the most difficult part. There are basic safeguards that users can adopt to protect themselves online, Richard said, but the best form of protection is to not be interesting enough for people to want to hack into your privacy.

However, Richard is a pretty interesting character himself. He currently lives in the New Orleans Garden District. He has always enjoyed music, although he says he cannot play any instruments. In his spare time, he is a professional live music photographer. Most of his photography subjects are heavy metal and hard rock bands. However, Richard edits his own photos, which has worked against his original intention to spend some time away from the computer. So in the meantime, Richard has begun to pursue gardening.

For more information on LSU CCT, visit cct.lsu.edu.

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