

Huahong Tu (Raymond)

School of Computing, Informatics, and Decision Systems Engineering
Ira A. Fulton Schools of Engineering
Arizona State University
tu@asu.edu • +1 480 420 8250 • http://huahongtu.me

RESEARCH AREAS

- Cybersecurity
- Networking and Telecommunications
- Data and information security
- Systems Engineering

RESEARCH EXPERIENCE

- Graduate Research Assistant May 2014 – Present
- SEFCOM Laboratory, Center for Cybersecurity and Digital Forensics, Arizona State University
 - Cybersecurity and systems engineering research in telecommunications network
 - Advisors: Dr. Adam Doupé and Dr. Gail-Joon Ahn

TEACHING EXPERIENCE

- Lab Instructor
- Introduction to Programming Languages Fall 2014
 - Principles of Programming in Java Fall 2013
- Teaching Assistant
- Distributed Software Development Fall 2014
 - Database Management System Implementation Spring 2014
 - Software Integration Spring 2014
 - Information Assurance Fall 2013
 - Information Assurance and Security Spring 2013
 - Computer Networks Fall 2012
 - Computer Science Capstone Project Spring 2012

INDUSTRY EXPERIENCE

- Software Engineer (Intern) Jun 2013 – Sep 2013
- Mobile Development Division, Eventbrite
 - Mobile app development, and QA automation development
 - Supervisor: Mr. Sean Coady
- Product Manager Sep 2010 – May 2011
- Software Development Division, GRG Banking
 - Product development, talent recruitment, and industry analysis
 - Supervisor: Mr. Yingbin Han

EDUCATION

- Doctor of Philosophy (Ph.D.) in Computer Science Dec 2017 (expected)
- School of Computing, Informatics, and Decision Systems Engineering, Arizona State University
 - Dissertation: Using Caller ID authentication to prevent telephone spam and scam
 - Notable Courses:
 - Software Security
 - Computer Network Security
 - Applied Cryptography
 - Distributed Software Development
 - Database Management System Implementation
 - Information Assurance and Security
 - Software Integration and Engineering
 - Software Design
 - Social Media Mining
 - Artificial Intelligence
 - Statistical Learning and Pattern Recognition
 - Statistical Machine Learning
 - Data Mining
 - Advanced Computer Network Security
 - Web and Multimedia Databases
 - Software Quality Assurance and Testing
- Bachelor of Science (B.S.) with Honors in Computer Science Jul 2010
- School of Computer Science, University of Nottingham
 - First Class Honors (GPA 4.0 equivalent)
 - Dissertation: A machine learning scheme to model and predict currency exchange rates

PUBLICATIONS	<p>Journal Papers</p> <ul style="list-style-type: none"> ▪ Huahong Tu, Adam Doupé, Ziming Zhao and Gail-Joon Ahn, “Toward Standardization of Authenticated Caller ID Transmission,” in <i>IEEE Communications Standards Magazine</i>, IEEE Communications Society, Sep 2017 <p>Conference Papers with Proceedings</p> <ul style="list-style-type: none"> ▪ Huahong Tu, Adam Doupé, Ziming Zhao and Gail-Joon Ahn, “Toward Authenticated Caller ID Transmission: The Need for a Standardized Authentication Scheme in Q.731.3 Calling Line Identification Presentation,” in <i>Proceedings of the ITU Kaleidoscope 2016 - ICTs for a Sustainable World (ITU K-2016)</i>, ITU Telecommunication Standardization Sector (ITU-T), Bangkok, Thailand, Nov 2016 (Best Paper Award) ▪ Huahong Tu, Adam Doupé, Ziming Zhao and Gail-Joon Ahn, “SoK: Everyone Hates Robocalls: A Survey of Techniques against Telephony Spam,” in <i>Proceedings of the 37th IEEE Symposium on Security and Privacy (SP)</i>, IEEE Communications Society, San Jose, California, USA, May 2016 (13.3% acceptance rate) 												
PATENT ACTIVITY	<ul style="list-style-type: none"> ▪ Huahong Tu, Adam Doupé, Gail-Joon Ahn and Ziming Zhao, “Systems and methods for authenticating caller identity and call request header information for outbound telephony communications,” filed for US <i>Non-Provisional</i> patent, USPTO application number 62/308,105, Arizona Technology Enterprises (AzTE), Mar 2016 												
AWARD & SCHOLARSHIP	<table border="0" style="width: 100%;"> <tr> <td style="width: 80%;">University Graduate Fellowship, Arizona State University</td> <td style="text-align: right;">Mar 2016</td> </tr> <tr> <td> <ul style="list-style-type: none"> ▪ For excellent research progress and strong academic work. </td> <td></td> </tr> <tr> <td>Winners Award, Money20/20 Hackathon 2015</td> <td style="text-align: right;">Oct 2015</td> </tr> <tr> <td> <ul style="list-style-type: none"> ▪ 625+ of the world’s most skilled developers ▪ For creating BridgePay: Using Visa to Send Money to Anyone </td> <td></td> </tr> <tr> <td>Golden Award, Codility Boron Challenge 2013</td> <td style="text-align: right;">Oct 2013</td> </tr> <tr> <td> <ul style="list-style-type: none"> ▪ 7200+ challengers around the world ▪ For delivering a flawless solution to one of Codility’s programming challenges </td> <td></td> </tr> </table>	University Graduate Fellowship, Arizona State University	Mar 2016	<ul style="list-style-type: none"> ▪ For excellent research progress and strong academic work. 		Winners Award, Money20/20 Hackathon 2015	Oct 2015	<ul style="list-style-type: none"> ▪ 625+ of the world’s most skilled developers ▪ For creating BridgePay: Using Visa to Send Money to Anyone 		Golden Award, Codility Boron Challenge 2013	Oct 2013	<ul style="list-style-type: none"> ▪ 7200+ challengers around the world ▪ For delivering a flawless solution to one of Codility’s programming challenges 	
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MEDIA INTERACTIONS	<p>Television</p> <ul style="list-style-type: none"> ▪ “How you can stop those annoying robocalls” news and TV broadcast by Steve Sbraccia, CBS WNCN, Aug 2017 ▪ “ASU team tests ‘green padlock’ solution to scam phone calls” news and TV broadcast by Derek Staahl, 3TV KTVK and CBS 5 KPHO, Jun 2017 ▪ “Robocall ringing your cellphone? Here’s what not to do” news and TV broadcast by Ian Schwartz, 3TV KTVK and CBS 5 KPHO, Mar 2017 <p>Radio</p> <ul style="list-style-type: none"> ▪ “How the FCC, the telecom industry and computer programmers are working to fight robocalls” invited radio talk, on AirTalk hosted by Larry Mantle, 89.3 KPCC (Southern California NPR), Oct 2016 <p>Print</p> <ul style="list-style-type: none"> ▪ “Junk call nightmare flooded woman with hundreds of bizarre phone calls a day” media mention, by Jon Bronkin, Ars Technica, Aug 2017 ▪ “Fed up with rising robocalls, millions say ‘Do Not Call’ list doesn’t work and want relief” invited newspaper opinion, by Lily Leung, The Orange County Register, Oct 2016 												
INVITED TALKS	<ul style="list-style-type: none"> ▪ “Toward Authenticated Caller ID Transmission” invited talk, at ITU-T Study Group 11, ITU Telecommunication Standardization Sector (ITU-T), Feb 2017 ▪ “Everyone hates Robocalls: Why is it so hard to stop?,” invited talk, at Open Web Application Security Project (OWASP) Phoenix Chapter, Oct 2016 												
LANGUAGES	<p>English</p> <ul style="list-style-type: none"> ▪ Fluent (speaking, reading, writing) <p>Chinese</p> <ul style="list-style-type: none"> ▪ Fluent (speaking, reading, writing) 												

REFERENCES

Dr. Adam Doupe
Assistant Professor of Computer Science
Co-Director of SEFCOM Laboratory
Arizona State University
doupe@asu.edu
+1 480 727 5471

Dr. Gail-Joon Ahn
Professor of Computer Science
Co-Director of SEFCOM Laboratory
Arizona State University
gahn@asu.edu
+1 480 965 9007

Dr. Ziming Zhao
Assistant Research Professor
Arizona State University
zzhao30@asu.edu
+1 480 332 7221

Dr. Dijiang Huang
Associate Professor of Computer Science
Arizona State University
dhuang8@asu.edu
+1 480 965 2776