

# CURRICULUM VITAE – RUIMIN SUN

## CONTACT INFORMATION

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Gainesville, FL 32611

## RESEARCH INTERESTS

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**Security and Reliability** in ubiquitous Systems (Desktop, Mobile, CPS/IoT)  
**Machine learning** and **Deep Learning** based data analysis

## EDUCATION

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**University of Florida (UF)** Aug. 2014 – Aug. 2018  
Ph.D. in Electrical and Computer Engineering  
Advisor: Daniela Oliveira  
Co-advisor: Xiaolin Andy Li

**University of Florida (UF)** Aug. 2012 – May. 2014  
M.S. in Electrical and Computer Engineering  
Advisor: Xiaolin Andy Li

**Southeast University (SEU), China** Aug. 2008 – Jun. 2012  
B.S. in Instrument Science and Engineering  
Thesis: Wireless Human Pulse Signal Measurement and Analysis System.  
Advisor: Ruqiang Yan

## AWARDS AND HONORS

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Grace Hopper Celebration Scholarship	2017
IEEE S&P Travel Award	2015
GREPSEC II (An NSF supported workshop for women and underrepresented groups in computing) Travel Award	2015
Wilson and Marie Collins Graduate Fellowship, University of Florida	2014
19th GENI Travel Award	2014
Achievement Award in Engineering, University of Florida	2012-2014
First prize in College Student Robotics Contest, Jiangsu Province	2011
First prize in National Undergraduate Mathematical Contest in Modeling, SEU	2010
First prize in the IEEE Standard MicroMouse Searching Maze Contest, SEU	2010
Second prize in Autonomous Vehicle Contest, SEU	2009
Third prize in National Challenging Cup College Student Contest, SEU	2011
Alumni Scholarships, SEU	2008-2011
Government Scholarship, National Scholarship, SEU	2008-2011

## PRESENTATIONS AND INVITED TALKS

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The Case for Less Predictable Operating System Behavior	HotOS 2015
Bear: A Framework for Understanding Application Sensitivity to OS (Mis)Behavior	ISSRE 2016
The Dose Makes the Poison - Leveraging Uncertainty for Effective Malware Detection	DSC 2017
How Diverse OS can Improve Software Reliability towards OS (mis)Behavior (Invited Talk)	
	<i>Beihang University, China, 2017</i>

### Poster Presentations:

The Case for Less Predictable Operating System Behavior	FICS Conf. 2016
Bear: A Framework for Understanding Application Sensitivity to OS (Mis)Behavior	FICS Conf. 2017
DeepMalware: Deep Models and Mechanisms for Malware Detection	NSF-CBL 2017
DeepMalware: Deep Models and Mechanisms for Malware Detection	FICS Conf. 2017

## PROFESSIONAL SERVICES

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Conference Reviewer:	ACSAC 2015, 2016, 2017 AsiaCCS 2014, 2015 Raid 2016, 2017 DSC 2017, WiSec 2016, LASER 2017, ASHES 2017 ACM CHI 2017
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## PUBLICATIONS

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**Ruimin Sun, Xiaoyong Yuan, Pan He, Qile Zhu, Aokun Chen, Andre Gregio, Daniela Oliveira, Xiaolin Li.** *Learning Fast and Slow: PROPEDEUTICA for Real-time Malware Detection.* (Under Review) <http://plaza.ufl.edu/gracesrm/paper/making-deep-learning.pdf>

**Ruimin Sun, Andrew Lee, Aokun Chen, Donald E. Porter, Matt Bishop, and Daniela Oliveira,** 2016, October. Bear: A Framework for Understanding Application Sensitivity to OS (Mis) Behavior. In *Software Reliability Engineering (ISSRE), 2016 IEEE 27th International Symposium on* (pp. 388-399). IEEE. [[PDF](#)][[Slides](#)]

**Ruimin Sun, Xiaoyong Yuan, Andrew Lee, Matt Bishop, Donald E. Porter, Xiaolin Andy Li, Andre Gregio and Daniela Oliveira,** 2017. The Dose Makes the Poison--Leveraging Uncertainty for Effective Malware Detection. *2017 IEEE Conference on Dependable and Secure Computing (DSC), Taipei, 2017,* pp. 123-130. [[PDF](#)][[Slides](#)]

**Ruimin Sun, Matt Bishop, Natalie C. Ebner, Daniela Oliveira and Donald E. Porter,** 2015. The Case for Unpredictability and Deception as OS Features. *USENIX; login. 2015 Aug 1.* (Invited Paper)[[PDF](#)]

**Ruimin Sun, Donald E. Porter, Daniela Oliveira, and Matt Bishop, M.** The Case for Less Predictable Operating System Behavior. 15th Workshop on Hot Topics in Operating Systems (HotOS). Kartause Ittingen, Switzerland, May 18-20 2015. [[PDF](#)][[Slides](#)]

**Ruimin Sun**, Matt Bishop, Don Porter, Daniela Oliveira. *Leveraging Uncertainty for Effective Malware Mitigation and Software Resilience Improvement. (Under Review)*  
<http://plaza.ufl.edu/gracesrm/paper/leveraging-uncertainty-effective.pdf>

**Ruimin Sun**, Xiaoyong Yuan, Aokun Chen, Donald E. Porter, Matt Bishop, Xiaolin Li and Daniela Oliveira. *Mollitiam: Fine-grained Diagnosis of Application Resilience to OS Misbehavior via Deep Learning (Pending)*

## **TEACHING**

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EEL 4930/EEL 5934 Cross-Layered Security, Spring 2015, University of Florida

EEL 4930/EEL 5934 Cross-Layered Security, Spring 2016, University of Florida

### **Courses of Interest:**

- Undergraduate level
  - Introduction to Computer Security
  - Operating System Design
  - Digital Logic
  - VLSI
  - Computer Architecture
  - Computer Communication
  - Microprocessor
  - Programming
  
- Graduate level
  - System and Software Security
  - Advanced Algorithms
  - Advanced Database System
  - Cloud Computing
  - Deep Learning Analysis
  - IoT/cyber-physical systems