

FACULTY

Jim Anderson, Instructor I, electrical and healthcare networks, cybersecurity.

Marvin Andujar, Assistant Professor, brain-computer interfaces, drones.

Zachariah Beasley, Instructor I, sentiment analysis and data mining.

Shaun Canavan, Assistant Professor, computer vision, affective computing.

Sriram Chellappan, Professor, socio-technical systems.

Ken Christensen, Professor, energy efficient networks.

Giovanni Luca Ciampaglia, Assistant Professor, network science and computational social science.

Suey-Chun (Roger) Fang, Instructor II, data modeling and information systems.

Alessio Gaspar, Associate Professor, evolutionary algorithms and computing education research.

Dmitry Goldgof, Distinguished University Professor, medical image analysis, computer vision, AI.

Lawrence Hall, Distinguished University Professor, intelligent systems, data mining, AI.

William Hendrix III, Instructor I, graph algorithms and parallel computing.

Isabela Hidalgo, Instructor I, human-computer interaction.

Adriana Iamnitchi, Professor, distributed systems, computational sociology, AI.

Henrick Jeanty, Instructor I, technical analysis algorithms.

Robert Karam, Assistant Professor, hardware security, reconfigurable computing, bioimplantable devices.

Srinivas Katkooi, Associate Professor, low power VLSI synthesis.

Valentina Korzhova, Instructor I, computer vision.

Miguel Labrador, Professor, computer networks and ubiquitous sensing.

John Licato, Associate Professor, NLP, cognitive modeling, formal/informal reasoning, AI.

Jay Ligatti, Professor, software security and programming languages.

Yao Liu, Associate Professor, network security and wireless technologies.

Mehran Mozaffari Kermani, Associate Professor, cryptographic engineering.

John Murray-Bruce, Assistant Professor, computational imaging and sensing, sampling theory.

Tempestt Neal, Assistant Professor, mobile biometrics, ubiquitous sensing, language processing.

Xinming (Simon) Ou, Professor, cybersecurity and cyber physical systems.

Marbin Pazos-Revilla, Instructor I, cyber-physical systems and IoT.

Rafael Perez, Professor, artificial intelligence and neural networks.

Les Piegl, Professor, geometric modeling and computer graphics.

Paul Rosen, Assistant Professor, data visualization and computer graphics.

Sudeep Sarkar, Professor, computer vision, biometrics, and AI.

Schinnel Small, Instructor I, programming languages and visual analytics.

Yu Sun, Professor, intelligent systems, robotics, deep learning.

Yicheng Tu, Professor, database systems and multimedia systems.

Phil Ventura, Instructor II, pedagogy of object orientation.

Jing Wang, Instructor III, computer animation and K-12 outreach.

Alfredo Weitzenfeld, Professor, biologically inspired robotics and intelligent systems.

Attila A. Yavuz, Assistant Professor, applied cryptography and privacy enhancing technologies.

Yan Zhang, Instructor I, congestion control and energy optimization.

Hao Zheng, Associate Professor, system verification and validation.

LEADERSHIP

Sudeep Sarkar, Chair

Dmitry Goldgof, Vice-Chair

Ken Christensen, Associate Chair of Undergraduate Affairs

Yu Sun, Associate Chair of Graduate Affairs

Marbin Pazos-Revilla, CSE Tech Administrator

Jing Wang, Director of Broadening Participation in Computing

William Hendrix III, Program Director for CS/CpE

Schinnel Small, Program Director for IT

Sriram Chellappan, Program Director for CyS

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Marjorie Fontalvo, Undergraduate Advisor

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UNIVERSITY of
SOUTH FLORIDA



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SOUTH FLORIDA

COMPUTER SCIENCE AND ENGINEERING

FACTS
2019 - 2020



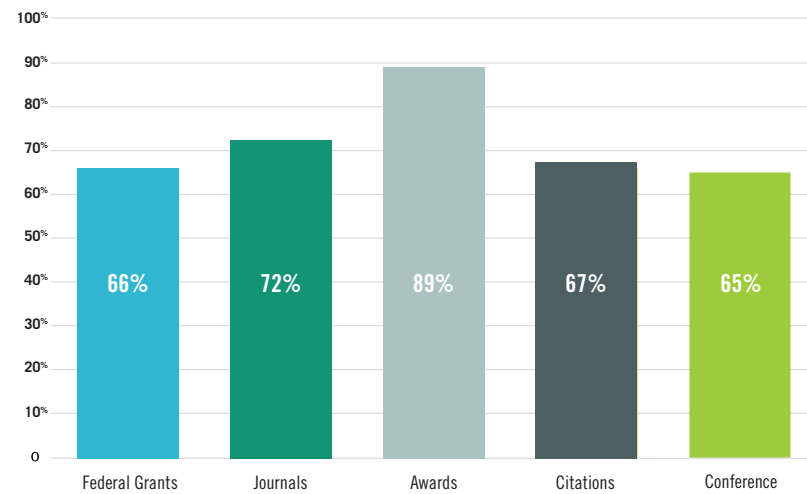
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KEY FACTS AND RANKINGS

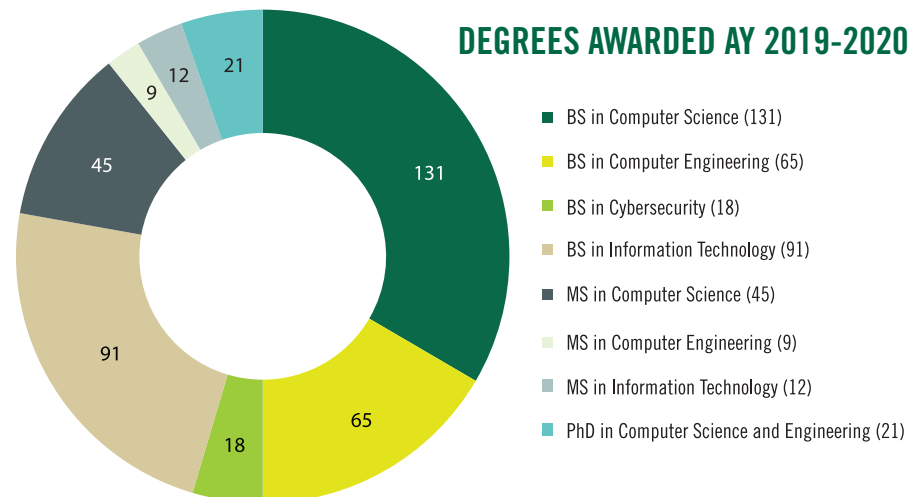
- The 2021 US News & World Report ranked our Computer Engineering program in the 52nd place among public universities and 86 out of 134 among all universities, public and private.
- The 2021 US News & World Report ranked the graduate Masters of Science in Information Technology program #10 for online IT programs.
- USF Institute for Artificial Intelligence (AI+X) was approved by the Florida Board of Governors in 2019.
- Faculty members are currently executing \$9.3 million in active external research grants from NSF, DoD, NIH, NIST, industry, and state sources. Twelve Department faculty members are NSF CAREER awardees.
- USF CSE is in the top 20% (rank 34) of Computer Science departments at U.S. public universities, according to Academic Analytics (2018) data based on Scholarly Research Index.*
*Uses default weights for grants, articles, conferences, awards, and citations.
- USF CSE has a major initiative to broaden participation in computing through a three-year grant from NU Center for Inclusive Computing. In 2019, CSE engaged with NCWIT Learning Circle to develop a BPC plan. CSE is a 2020 BRAID Affiliate.

RESEARCH BENCHMARKS

Academic Analytics 2018
Comparison Group: US Public Institutions
Overall Rank: 34

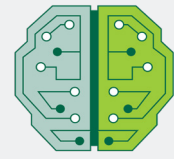


DEGREES AWARDED AY 2019-2020



FACULTY RESEARCH AREAS

A.I. and Cognitive Computing



Computer Vision and Pattern Recognition, Artificial Intelligence and Machine Learning, Robotics, Brain-Computer Interfaces, Computational Neuroscience, Affective Computing

Cybersecurity



Cryptography, Trustworthy Computing, Network Security, Smart Bio-Devices, Hardware Security, Biometrics

Efficient Computing Platforms



Computer Architecture, VLSI, Ubiquitous Sensing Networks, Distributed Computing, Parallel Processing, and Biomedical Devices

Big-Data Algorithms



Biomedical Imaging, Machine Learning, Databases, Visualization, Social Networks, and Efficient Computing Platforms

FACULTY HONORS AND AWARDS

- Fellows: 7 IEEE, 4 AAAS, 1 NAI, 3 AIMBE, 4 IAPR
- 1 IEEE Norbert Weiner Award
- 2 ACM CCS Test of Time Awards
- 1 IEEE DSN Test of Time Award
- 12 NSF CAREER Awards

INNOVATION, PATENTS, AND LICENSES FY 2016-2020

- 38 patents issued to faculty
- 120 US and foreign patent applications
- 6 copyrights
- 13 license/option agreements
- 4 NSF I-Corps Teams

CSE STUDENT ORGANIZATIONS

- Women in Computer Science and Engineering (WiCSE)
- Whitehatters Computer Security Club
- Society of Competitive Programmers (SCP)
- RoboBulls
- GameDev Club (GDC)
- Developer Student Club (DSC)
- IEEE Computer Society (IEEE - CS)
- Brain-Computer Interface (BCI) Club
- Association for Computing Machinery (ACM)

SELECTED EXTERNAL RESEARCH GRANTS 2019-2020

- Canavan, Shaun (PI); Sarkar, Sudeep; Hall, Lawrence; Goldgof, Dmitry; Rosen, Paul**, A Novel, Robust Fake Video Detection System, Defense Intelligence Agency, \$904,980, 5/28/2020 - 5/27/2021
- Christensen, Ken (PI); Rafael Perez**, Collaborative Research: Florida IT Pathways to Success (Flit-Path), NSF, \$1,527,307, 10/1/2016-9/30/2021
- Gaspar, Alessio (USF); Rudolf Wiegand (UCF)**, Using Coevolutionary Algorithms to Identify Distractor Answers for Multiple Choice Questions Used for Peer Instruction, NSF, \$599,890, 07/01/2020 - 07/01/2023
- Mouton, Peter (SRC PI); Goldgof, Dmitry (USF PI); Hall, Lawrence** STTR Phase II: Microscope-based Technology for Automatic Brain Cell Counts Using Unbiased Methods, NSF+ FHTC Matching Program, \$439,712, 11/1/2019 - 9/31/2021
- Iamnitchi, Adriana (PI); Hall, Lawrence; Skvoretz Jr., John**, Modeling Information Diffusion Processes with Deep Learning Algorithms, DARPA, \$1,704,461, 10/12/2017-10/11/2021
- Karam, Robert (PI)**, Katkooi, Srinivas, Mozaffari-Kermani, Mehran, SaTC: EDU: Improving Student Learning through Competitive Embedded System Security Challenges, NSF, \$499,145, 05/01/2020 - 04/30/2023
- Liu, Yao**, CAREER: A Pathway to Virtual Channel Camouflage Wireless Security, NSF, \$297,053, 3/1/2016-2/28/2021
- Mozaffari Kermani, Mehran (PI)**, Investigating Active Side-Channel Attacks and Developing Countermeasures for Standardization of Lightweight Cryptography, NIST, \$500,000, 04/01/2020-04/01/2024
- Thomas, Sylvia (PI); Neal, Tempestt; Negro, Alessandro**, RAPID: Early Detection of Disease Outbreaks using Self-Organizing Patterns - COVID-19, NSF, \$200,000, 05/07/2020-04/06/2021
- Ou, Xinming (PI); Lende, Daniel; Ligatti, Jay**, SaTC: CORE: Medium: Collaborative: Understanding Security in the Software Development Lifecycle: A Holistic, Mixed-Methods Approach, NSF, \$500,000, 09/01/2018-08/31/2021
- Rosen, Paul**, CAREER: Discovering Structure in Uncertainty: Using Topology for Interactive Visualization of Uncertainty, NSF, \$ 526,784, 08/15/2019-08/14/2024
- Sarkar, Sudeep (PI); Wang, Jing; Christensen, Ken**, Broadening Participation in Computer Science and Engineering at University of South Florida, NU Center for Inclusive Computing, \$579,737, 2020-2023.
- Sarkar, Sudeep (USF); Srivastava, Anuj (FSU); Aakur, Sathyarayanan (OSU), RI: Medium: Collaborative Research: Understanding Events from Streaming Video - Joint Deep and Graph Representations, Commonsense Priors, and Predictive Learning, NSF, \$1,005,543, 10/1/2020-9/30/2024**
- Sun, Yu (PI), Dmitry Goldgof, Thao Ho, Denise Maguire, Yangxin Huang**, A Multimodal Approach for Monitoring Prolonged Acute Pain in Neonates, NIH R21, \$400,567, 7/16/2020-6/30/2022
- Sun, Yu, RI: Small: Generalizing Learned Manipulation Skills to Unseen Situations by Balancing Uncertainties, NSF, \$334,823, 9/1/2019-8/31/2022**
- Jean-Marc Fellous (U Arizona), Weitzenfeld, Alfredo (USF), RI: Medium: Collaborative Research: Experimental and Robotics Investigations of Multi-Scale Spatial Memory consolidation of Complex Environments, NSF, \$ 1,026,376, 9/1/2017-8/31/2021**
- Yavuz, Attila A.**, CAREER: Lightweight and Fast Authentication for Internet of Things, NSF, \$500,000, 03/2017 - 02/2022
- Zhang, Zhen (Utah State), Zheng, Hao (USF), Winstead, Chris (U Utah), FET: Medium: Collaborative Research: An Efficient Framework for the Stochastic Verification of Computation and Communication Systems Using Emerging Technologies, \$985,274, 7/15/2019 - 6/30/2023**