

Mr. Frank H. Katz

Assistant Professor
Director, Center for Applied Cyber Education (CACE)
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Education:

M.S. in Management, Georgia State University, Atlanta, GA. December 12, 1987
B.A. in Computer and Information Sciences, University of Florida, Gainesville, FL.
June 11, 1977

Certifications:

Palo Alto Networks Authorized Cybersecurity Instructor, Cybersecurity Infrastructure
Configuration, August 12, 2019

Professional Experience:

July 1, 2018 to Present

Assistant Professor of Information Technology
Georgia Southern University, Savannah, GA 31419

August, 2002 to June 30, 2018

Assistant Professor of Information Technology
Armstrong State University, Savannah, GA 31419

August 1997 to August 2002

Adjunct Instructor of Computer Science
Armstrong Atlantic State University, Savannah, GA 31419

September 1996 to August 1997

Adjunct Instructor of Information Technology
South College, Savannah, GA 31406

July 2001 to August 2002

Software Engineer III
Billing Systems Support
Verisign, Inc., Savannah, GA

January 1995 to July 2001

Senior Systems Analyst / Project Manager
Business Information Systems, lead analyst for Purchasing and Inventory Control Systems
Imperial Sugar Corp. / Savannah Foods and Industries
Savannah, GA

January 1988 to December 1994
Systems Analyst
Lead Analyst for Branch Operations Systems
Great Dane Trailers, Inc.
Savannah, GA

November 1982 to January 1988
Senior Programmer/Analyst
Manufacturing and Purchasing Systems
Coca-Cola USA, a division of The Coca-Cola Company
Atlanta, GA

July 1981 to November 1982
Staff Consultant
Arthur Andersen and Company
Atlanta, GA

July 1977 to July 1981
Officer, United States Army
Branch: Corps of Engineers; most senior rank: Captain
Served predominantly in the 92nd Engineer Battalion, Fort Stewart, GA as Platoon Leader and
Battalion Staff Officer (Personnel Officer and Equipment Maintenance Officer)

Education – Certification

For SACS Accreditation requirements, coursework in the Master of Applied Computer Science program, Columbus State University, commencing Summer term 2008. Successfully completed the required 18 graduate credit hours at the end of Summer term 2009.

Honors

Upsilon Pi Epsilon, National Computer Science Honorary

Professional Memberships and Boards

- Association for Computing Machinery
- AFCEA – (formerly known as Armed Forces Communication and Electronic Association, now just goes by the acronym)
- Infragard: a national information sharing program regarding Cyber Security between the FBI, government, industry, and academia. Member, the Coastal Empire Chapter.
- Associate Editor, Journal of Cybersecurity Education, Research, and Practice (JECERP) published by Kennesaw State University.
- Military Cyber Defense Organization (associated with the Army Cyber Defense Institute at West Point), Life Member

Papers

"The Effect of a University Information Security Survey on Instruction Methods in Information Security," published in The Digital Library of the ACM, Proceedings of the 2nd annual conference on Information Security Curriculum Development, InfoSecCD '05, Kennesaw State University, September 23, 2005.

"Campus-wide Spyware and Virus Removal as a Method of Teaching Information Security," published in The Digital Library of the ACM, Proceedings of the 3rd annual conference on

Information Security Curriculum Development, InfoSecCD '06, Kennesaw State University, September 22, 2006.

“Integrating a Security Awareness Program Into an Information Security Course,” published in the *Proceedings of the 21st Annual Consortium for Computing Sciences in Colleges (CCSC): Southeastern Region, Volume 23, Number 2*, December 2007. CCSC-SE 2007 was held at Coastal Carolina University, November 10, 2007

“Avian Flu: the Use of IT to Mitigate a Pandemic and its Effects on Information Security,” published in the *Proceedings of the 2nd Annual Computer Security Conference*, Coastal Carolina University, April 16-18, 2008

“Acceptable Use Policies as a Defense Against Threats Posed by the Use of Social Networking Sites in Organizations,” published in the *Proceedings of the 3rd Annual Computer Security Conference*, Coastal Carolina University, March 25-27, 2009.

“WPA vs. WPA2. Is WPA2 Really an Improvement on WPA?” published in the *Proceedings of the 4th Annual Computer Security Conference*, Coastal Carolina University, April 15-16, 2010.

“Curriculum and Pedagogical Effects of the Creation of a Minor in Cyber Security,” published in The Digital Library of the ACM, *Proceedings of the 7th Annual Conference on Information Security Curriculum Development, InfoSecCD '10*, Kennesaw State University, October 1-2, 2010

“A Comparison of Tablet Computers for Use as a Class Presentation Platform,” co-authored with Dr. Thomas Murphy and Mr. Christopher Williams, published in the *proceedings of the American Society for Engineering Education (ASEE), Southeastern Section Annual Conference*, Tennessee Technological University, March 10 – 12, 2012.

“The Creation of a Minor in Cyber Security – the Sequel,” published in The Digital Library of the ACM, *Proceedings of the 9th Annual Conference on Information Security Curriculum Development, InfoSecCD '12*, Kennesaw State University, October 12-13, 2012

“Measuring the Effectiveness of Instruction Based on Material From a Hands-On Workshop in Information Assurance,” published in the The Digital Library of the ACM, *Proceedings of the 10th Annual Conference on Information Security Curriculum Development, InfoSecCD '13*, Kennesaw State University, October 11-12, 2013

“A Comparison of Different Methods of Instruction in Cryptography,” published in The Digital Library of the ACM, *Proceedings of the 11th Annual Conference on Information Security Curriculum Development, InfoSecCD '14*, Kennesaw State University, October 11, 2014. Published in 2015 in the Information Security Education Journal.

"Breadth vs. Depth: Best Practices Teaching Cybersecurity in a Small Public University Sharing Models" published in the Summer 2018 edition of the Cyber Defense Review of the *Army Cyber Institute at West Point*

“Adversarial Thinking: Teaching Students to Think Like a Hacker,” published in The Journal of Cybersecurity Education, Research, and Practice, and in the proceedings of the *2019 Conference on Cybersecurity Education, Research, and Practice*, Kennesaw State University.

Grants

“Campus-Wide Spyware and Virus Removal as a Method of Teaching Information Security”, AASU Internal Grant” funded 11/14/2005 for \$1697.00

Workshop on Teaching Information Assurance at the University of Tennessee – Chattanooga, May 21 – 25, 2012. Attendance fully funded by an NSF grant of \$2000.

WebBSIT Grant for Research, Summer 2013, topic: BYOD Policies in Practice, \$6000

WebBSIT Grant for Research, Summer 2014, topic: Different Methods of Instruction in Cryptography, \$3000

Workshop on Teaching SEED Labs (SEcurity EDucation) labs, June 2019, Syracuse University, Syracuse, NY, \$1200

DoD CySP (Cybersecurity Scholarship) Grant, 2019. December 2019, \$8763

Presentations at Conferences

"The Effect of a University Information Security Survey on Instruction Methods in Information Security," presented at the *2005 Information Security Curriculum Development Conference (InfoSecCD 2005)*, September 23-24, 2005, Kennesaw State University, Kennesaw, GA.

"The Correlation Between Success in Pre-Calculus and Java Programming Among CS and IT Majors in the School of Computing at AASU," presented at the *11th Annual Math-Technology Conference*, February 24, 2006, Valdosta State University, Valdosta, GA.

"Campus-wide Spyware and Virus Removal as Method of Teaching Information Security," presented at the *2006 Information Security Curriculum Development Conference (InfoSecCD 2006)*, September 22-23, 2006, Kennesaw State University, Kennesaw, GA.

"Bird Flu's Effects on Business and Information Technology", as part of the presentation "Are We Prepared for Pandemic Bird Flu?", AASU Interdisciplinary Bird Flu Project, *AASU Faculty Lecture Series*, October 20, 2006

"Integrating a Security Awareness Program Into an Information Security Course," presented at the *21st Annual Consortium for Computing Sciences in Colleges (CCSC): Southeastern Region*, Coastal Carolina University, November 10, 2007

"Avian Flu: the Use of IT to Mitigate a Pandemic and its Effects on Information Security," presented at the *2nd Annual Computer Security Conference*, Coastal Carolina University, April 16-18, 2008

"Acceptable Use Policies as a Defense Against Threats Posed by the Use of Social Networking Sites in Organizations," presented at the *3rd Annual Computer Security Conference*, Coastal Carolina University, March, 25-27, 2009.

"WPA vs. WPA2. Is WPA2 Really an Improvement on WPA?" presented at the *4th Annual Computer Security Conference*, Coastal Carolina University, April 15-16, 2010.

"Curriculum and Pedagogical Effects of the Creation of a Minor in Cyber Security," presented at the *7th Annual Conference on Information Security Curriculum Development, InfoSecCD '10*, Kennesaw State University, October 1-2, 2010

"The Creation of a Minor in Cyber Security – the Sequel," presented at the *9th Annual Conference on Information Security Curriculum Development, InfoSecCD '12*, Kennesaw State University, October 12-13, 2012

"Measuring the Effectiveness of Instruction Based on Material From a Hands-On Workshop in Information Assurance," presented at the *10th Annual Conference on Information Security Curriculum Development, InfoSecCD '13*, Kennesaw State University, October 11-12, 2013

"A Comparison of Different Methods of Instruction in Cryptography," presented at the *11th Annual Conference on Information Security Curriculum Development, InfoSecCD '14*, Kennesaw State University, October 11, 2014

"Teaching Cryptography Using Calculative, Client-Based, and Virtual Methods, a *Nifty* Assignment", presented at the 30th Annual Consortium for Computing Sciences in Colleges Southeastern Conference (CCSC:SE 2016), November 4-5, 2016, UNC-Asheville, Asheville, NC

"Cyber Course Curriculum Development", presented at the Southeast Cybersecurity Conference (SECC), July 26-27, 2018, Orlando, FL

"Adversarial Thinking: Teaching Students to Think Like a Hacker," presented at the *2019 Conference on Cybersecurity Education, Research, and Practice*, Kennesaw State University, October 12, 2019.

Presentations to the Public

"The Effect of a University Information Security Survey on the Pedagogy of Information Security," presented at the *Sixth Annual Symposium on Teaching and Learning*, March 31, 2006, Armstrong Atlantic State University.

"Keeping Our Children Safe on the Internet", May 8, 2006, to the PTO of the Rambam Day School, Savannah, GA.

"Staying Safe on the Internet," presented to the Kiwanis Club of The Landings, The Landings at Skidaway Island, Savannah, GA, May 22, 2014

"Happy Tax Day: Is Your Data Still Secure," a lecture as part of the ASU College of Science and Technology's *Science on Tap* lecture series, presented at the Savannah Coffee Roasters on April 15, 2015.

"Are You at Risk for Cyber Identity Theft?" presented to the Georgia Heritage Federal Credit Union, Pooler, GA, November 9, 2017

Television interviews or appearances discussing Cyber Security:

- "Cyber Crime is growing, are you protected?", May 21, 2013 by JoAnn Merrigan, Savannah TV station WSAV.
- "Protect Your children and teens on social media," March 11, 2014, by JoAnn Merrigan, Savannah TV station WSAV.
- "How secure is Chip-and-PIN technology and is it the wave of the future?", May 6, 2014, by JoAnn Merrigan, Savannah TV station WSAV.
- "President Obama's Cyber Security Proposal," January 14, 2015, by JoAnn Merrigan, Savannah TV station WSAV.
- "Net Neutrality," February 10, 2015, by JoAnn Merrigan, Savannah TV station WSAV.
- "The Anthem Security Breach," March 2, 2015, by JoAnn Merrigan, Savannah TV station WSAV.
- "Hacking of Chrysler/Jeep automobiles and the Internet of Things," August 6, 2015, by Elizabeth Rawlins, Savannah TV station WTOC
- "Cyber Security Curriculum at Armstrong," second part of August 6, 2015 interview by Elizabeth Rawlins, Savannah TV station WTOC
- Participated in TAG (Technology Association of Georgia) sponsored panel discussion at DIRTT on "Privacy vs. Security: Local Experts Weigh in on Apple vs. the FBI," April 26, 2016, parts of which were broadcast on Savannah TV station WSAV on April 27, 2016.
- "Privacy vs. Security, Apple vs. the FBI," April 27, 2016, broadcast on May 3, 2016, interview by JoAnn Merrigan, Savannah TV station WSAV.

Armstrong – Community Service / Teaching

Summer Cyber Camp using the US Air Force Association's Cyber Patriot Program – taught this program during the initial camp for high school students, June 13 – 17, 2016. This program was funded by a \$13,000 grant from the US Army 6th ROTC Region.

Workshops Attended

CIO Summit, sponsored by Savannah Technical College, Crossroads Technology Campus, November 18, 2004.

7th Science in Savannah Symposium, sponsored by the Coastal Empire Chapter of Infragard, Armstrong Atlantic State University, March 13, 2005

Faculty Development Workshop on Teaching Information Security, Kennesaw State University, Kennesaw, GA, December 15-18, 2006

Cyber Security Workshop, sponsored by the Coastal Empire Chapter of Infragard, Armstrong Atlantic State University, May 8, 2007

NSF Summer Workshop on Teaching Information Assurance at the University of Tennessee – Chattanooga, May 21 – 25, 2012.

Desire-2-Learn Regional Workshop on Best Practices, at Valdosta State University, February 20 and 21, 2013.

New Models, MOOCs and Beyond, at the Georgia Institute of Technology, November 6, 2013

American Council on Education (ACE) Workshop on ACE Credit for Workforce Training and ACE Military Training, at the Georgia Institute of Technology, April 11, 2014

Technology Association of Georgia (TAG), 2015 Cybersecurity Simulation, at Southern Polytechnic State University (of Kennesaw State University), Marietta, GA, May 5, 2015

SEED (Security Education) Workshop, Teaching SEED Labs, at Syracuse University, Syracuse, NY, June 3 -6, 2019

NSA-CAE Southeast Workshop and Regional Meeting, at the University of West Florida, Pensacola, FL, September 11-13, 2019

Conferences/Symposia – Other

AASU Annual Student Research Symposium, April 2008, served as judge.

22nd Annual Consortium for Computing Sciences in Colleges (CCSC): Southeastern Region, Augusta State University, November 7-8, 2008: served as Session Chair and Judge, Student Research Competition.

AASU Annual Student Research Symposium, April 2010, served as judge.

AASU Annual Student Research Symposium, April 2011, served as judge.

51st ACM Southeast Regional Conference, Coastal Georgia Center, Savannah, hosted by AASU, April 4-6, 2013; member of the Program Committee

Cyber Education Summit, at Georgia Regents University, October 23, 2104

2nd Annual Cyber Education Summit, at Georgia Regents University, October 14-15, 2015

NSA-CAE Community Meeting, San Diego, CA, November 2, 2015

NICE (National Initiative for Cybersecurity Education, an initiative of the National Institute of Standards and Technology, NIST) Annual Conference, San Diego, CA, November 3-4, 2015

Spring 2016 Army Cyber Talks, sponsored by the Army Cyber Institute (ACI) of the United States Military Academy at West Point, at the Georgia Institute of Technology, Atlanta, March 29, 2016

NSA-CAE Community Meeting, and National Cyber Summit, Huntsville, AL, June 7-9, 2016. It was at this meeting that Armstrong was awarded its certificate as an NSA Center of Academic Excellence in Cyber Defense Education. Attended as ASU Point of Contact for the NSA-CAE program.

30th Annual Consortium for Computing Sciences in Colleges Southeastern Conference (CCSC:SE 2016), November 4-5, 2016, UNC-Asheville, Asheville, NC

NSA-CAE Community Meeting, and National Cyber Summit, Huntsville, AL, June 5-6, 2017. Attended as ASU Point of Contact for the NSA-CAE program.

Conference on Cyber Security Education, Research, and Practice (CCERP - formerly InfoSec CD), October 20 and 21, 2017, Kennesaw State University, Kennesaw, GA

NSA-CAE Community Meeting, and National Cyber Summit, Huntsville, AL, June 5-7, 2018. Attended as GSU Point of Contact for the NSA-CAE program.

Southeast Cybersecurity Conference, of NSA-CAE Southeast Regional institutions. July 26-27, 2018, Orlando, FL

Conference on Cyber Security Education, Research, and Practice (CCERP - formerly InfoSec CD), October 19 and 20, 2018, Kennesaw State University, Kennesaw, GA

NSA-CAE Community Meeting, and National Cyber Summit, Miami, FL, November 8-9, 2018. Attended as GSU Point of Contact for the NSA-CAE program.

NICE Conference, 2019, November 18-20, 2019, Phoenix, AZ

NSA-CAE Annual Symposium, 2019, November 21-22, 2019, Phoenix, AZ. Attended as GSU Point of Contact for the NSA-CAE program.

AFCEA CERTS 2020, January 14-16, 2020, Augusta, GA

Recognition of Teaching and Service:

Since the Fall of 1994, AASU's Division of Student Affairs has asked each new graduating class to "name one person at the University who made the most significant impact in their lives as students." I have been fortunate to have been selected by one or more graduates as that significant person fifteen times since the Department of Information Technology graduated its first class at the end of the Spring 2004 semester.

I was selected as one of the "most inspirational and supportive" faculty members of Armstrong during the Armstrong State University era (2014-2017). I was honored at an event on March 24, 2018 and my name was placed on a permanent plaque in Armstrong Alumni Association office in Burnett Hall, which was unveiled at an event on June 1, 2018.

Service - Georgia Southern University

University-Wide

- Appointed Director, Center for Applied Cyber Education (CACE), December 2019

College of Engineering and Computing

- Search Committee for Assistant Dean of CEIT (internal search, from Armstrong faculty), October – November, 2017

College of Engineering and Computing, Department of Information Technology, Georgia Southern University

- Served as faculty judge for Annual Research Symposium at GSU on April 19, 2018
- Search Committee for Information Technology Department Chair, November 2018 – March 2019
- Search Committee for Information Technology Department faculty position (for the Armstrong Campus), Spring 2019
- Committee for development of an online IT Curriculum, Spring – Summer 2019
- Served as faculty judge for Annual Research Symposium at GSU on April 25, 2019
- Member of committee to develop the web-based IT degree at GSU, June 2019 to the present

Committee Assignments at Armstrong:

University-Wide:

- University Financial Aid and Scholarship Committee, August 2003 to May 2005
- University Faculty Development Committee, August 2005 to May 2008
- University Disability Services Committee, February 2004 to the present
- University Ad-Hoc Committee on Computer Security in Compass Point, November 2002 – January 2003
- University Ad-Hoc Subcommittee on Electronic Voting, March – May 2004
- University Ad-Hoc Committee on Social Security Number Transition, March – July 2005
- University Search Committee for Founding Dean, College of Science and Technology, December 2007 – April 2008
- University Library Committee, August 2011 – May 2013, Chairperson, August 2012 – May 2013
- Faculty Senator representing the Department of Information Technology, serving a two year term commencing at the beginning of the Fall 2008 semester.
- Faculty Senate Committee on Committees, Fall 2008 to the present.
- Served as Faculty Evaluator of student projects from the Department of Dental Hygiene, Student Research Presentations and Annual Open House, April 20, 2005
- Served as Faculty Evaluator and Judge for 14th Annual AASU Student Research Symposium, April 2008
- Served as Faculty Evaluator of student projects from the Department of Dental Hygiene, Student Research Presentations and Annual Open House, March 4, 2009
- Served as Faculty Evaluator of student projects from the Department of Dental Hygiene, Student Research Presentations and Annual Open House, March 3, 2010
- Served as Faculty Evaluator of student projects from the Department of Dental Hygiene, Student Research Presentations and Annual Open House, March 2, 2011
- Co-Chair of Information Technology Curriculum Organizational Working Group (OWG) for the consolidation of Armstrong and Georgia Southern's IT curriculum, March – October, 2017

College of Science and Technology:

- Curriculum Committee – Fall Semester 2008 to end of Spring Semester 2012
- Grade Appeal Committee – Fall Semester 2015 to end of Spring Semester 2017
- CACE (Center for Applied Cyber Education) Strategic Planning Committee, Fall 2016 to present

Armstrong State University School of Computing:

- Curriculum Committee – Fall Semester 2003 to May 2008
- NSA Center of Excellence Feasibility Committee, November 2007 to April 2008.

Armstrong Departmental:

- Curriculum Committee (chair) – Fall Semester 2003 to the present
- Strategic Planning Committee – February 2003 to December 2003
- Advisement Committee – 2003-2004 academic year
- Search Committee – Spring Semester 2003
- CSCI 1150 Course Committee (chair) – Fall Semester 2006 to present
- Learning Outcomes Committee – Chair of subcommittee for ITEC 3100 – Fall Semester 2006 to present

Courses Taught at Armstrong (if changed for GSU, indicated in *italics*):

- ITEC 1050 (formerly CSCI 1050): Introduction to Computer Concepts and Applications
- CSCI 1150: Fundamentals of the Internet and the World Wide Web
- ITEC 1300: Fundamentals of Information Technology
- ITEC 2530: Operating Systems; *at GSU, IT 2530*
- ITEC 3500: Database Management; taught as former ITEC 4740
- ITEC 3600: Systems Analysis and Design
- ITEC 3610: Systems and Network Administration (original course number)
- ITEC 3700: Cyber Security I, Fundamentals of Information Systems Security; taught as former ITEC 3100 and then renumbered as ITEC 5001U and G (taught both); *at GSU, IT 3530*
- ITEC 4200: Cyber Security II, Network Security; taught as former ITEC 5002U and G (taught both); *at GSU, IT 4336*
- ITEC 4300: Cyber Security III, Ethical Hacking and Incident Response; *at GSU, IT 4337*
- ITEC 4800: Network Design and Administration
- ITEC 4830: IT Graphics Design
- ITEC 4990: Special Topics in Information Technology
- WBIT 1100: WebBSIT Fundamentals of Information Technology
- WBIT 3110: WebBSIT Systems Analysis and Design

Courses Taught at Georgia Southern:

Many courses taught once consolidation was complete are the same as above, with new course numbers. Those courses are indicated above. New or changed courses are listed below.

- IT 2531: Introduction to Cybersecurity (this was the former ITEC 2010 at Armstrong)
- IT 3234: Systems Acquisition, Development, and Implementation

In addition, it should be noted that:

- I was given a one course reduction in Fall Semester, 2003, to research and develop the department's course in Information Security.
- I was given a one course reduction in Spring Semester, 2008, to perform the tasks necessary to attempt to obtain NSA Center of Excellence accreditation for our IT and Information Security curriculum. After this work was completed, Armstrong chose not to pursue this accreditation at this time.
- I was tasked to create the online WebBSIT Systems Analysis and Design course during the Summer 2004 term. This effort was treated as if it was a course assignment.
- When the Liberty Center requested a professor to teach a computer science course there, for the Summer 2006 term, I volunteered to do so. This course was CSCI 1150. I did so again during the Summer 2007 and 2008 terms.
- I was assigned to transform ITEC 5001 into CRJU 5001G, to be taught totally online, in early 2011. This was completed before the beginning of the Fall, 2011 semester.
- I was assigned to transform ITEC 5002 into CRJU 5002G, to be taught in totally online, during the Summer of 2011. This was completed before the beginning of the Spring 2012 semester.
- I was given a one course reduction in Spring Semester, 2015, to lead the effort to obtain NSA Center of Excellence accreditation for the ASU Cybersecurity curriculum.

Personal

Awarded the Army Commendation Medal by the Department of the Army for service as an Engineer Officer on active duty from 1977 to 1981, June, 1981.

Named "Volunteer of the Year" by Savannah's Jewish Educational Alliance (JEA), May 1997

Awarded the Savannah Jewish Federation's President's Award for service to the Savannah Jewish community, September, 2015

Board of Directors of the Jewish Educational Alliance (JEA), 1994-1996, 1997 to 1999.

President of the JEA Men's Club, 1994-1996

Member, Jewish War Veterans of the United States; Commander, Post 320, 1993 to 2016

Board of Directors of Savannah's Congregation B'nai B'rith Jacob, 1996 to 2013. Vice-President of the synagogue's Brotherhood service organization, 1991- 2011. Recognized for 17 years of service as Vice-President of the Brotherhood at the annual meeting on February 24, 2008; President, May 2011 to June 2013.

President, Savannah University of Florida Alumni Club, 1996-1997; Secretary, 1997 to present; Treasurer, 2004 to June 2008, and again 2016 to present.