Computing Sciences Colloquia – Fall 2022 – Spring 2023

Department of Computing Sciences, University of Scranton

P. M. Jackowitz, Coordinator

Last Modified Wednesday April 12, 2023

Announcements:

- Tentative schedule of class meetings; subject to change.

	Spring 2023
Week of	**Friday 3:00 – 4:15 PM**
Jan 23	Jan 27 – Faculty Panel on Academic Integrity
Jan 30	
Feb 6	
Feb 13	Feb 17 - Internet Policy and Piracy: the Good, the Bad, and the Practical -Dr. Joe Touch '85
Feb 20	Feb 24 – Securing the Defense Industrial Base – Nick DelRosso '00
Feb 27	
Mar 6	
Mar 13	Mar 17 – Spring Break
Mar 20	
Mar 27	
Apr 3	Apr 7 – Easter Break
Apr 10	
Apr 17	
Apr 24	Apr 28 – ACM Distinguished Speaker Presentation Software Engineering and Data Science - Dr. Vijayalakshmi Saravanan
May 1	May 05 -
May 8	May 12 – Student Projects Fair (in LSC)
May 15	May 19 – Last Day of Exams and Semester

	Fall 2022
Week of	**Friday 3:00 – 4:15 PM**
Aug 29	
Sep 5	Sep 9 – Introductory Meeting
Sep 12	Sep 16 – Git – A Distributed Version Control System – Dr. Yaodong Bi
Sep 19	
Sep 26	

Oct 3	Oct 7 – Securing the Cloud, Securing your Customers, Securing the Planet – Dan Faltyn '99
Oct 10	
Oct 17	
Oct 24	Oct 28 – First IT Job and Future Career Path – Dave Wolfe '92
Oct 31	
Nov 7	Nov 11 – Considering Graduate School? Things to know from a panel that has done it. Chris Filachek '96, Dr. Frank Klassner '88, Mary Predenkoski '87, Dr. Joe Touch '85
Nov 14	
Nov 21	Nov 24 – Thanksgiving Break
Nov 28	Dec 2 – Student Internships, Research Experiences, Etc. – Current Students
Dec 5	
Dec 12	Dec 16 – Final Exams

Sep-16-2022	**Git – A Distributed Version Control System**
	Dr. Yaodong Bi
	ABSTRACT: Version control is about tracking and managing changes to software code and documents. Today's Version control systems can track and manage changes made by team members and facilitate collaborations and communications among them. Git is one of the most commonly used version control systems. It is free and open source, and it has been integrated into almost all the modern IDEs such as Eclipse and Android Studio. This presentation is a brief introduction to Git. It first introduces its basic functions and shows how they can help you as a student in your programming assignments and projects. It then covers functions that facilitate collaborations and communications among team members and the basic workflow using Git in team environment.
	BIOGRAPHY: Yaodong Bi is a professor of the Department of Computing Sciences at the University of Scranton. He earned his doctoral degree in computer science from University of Illinois at Chicago in 1991 and he has been with the university since he graduated. He teaches upper-level computer science courses for the three undergraduate programs and graduate courses for the Master of Science in Software Engineering program.
Oct-07-2022	**Securing the Cloud, Securing your Customers, Securing the Planet**
	Dan Faltyn '99
	ABSTRACT: There has never been a time simultaneously more scary and full of opportunity for the information security professional. Cyber attacks have affected every industry, government, and individual with a computer. The rapid growth of the IoT (Internet of Things,) and a push to "the cloud" expands the surface area for attacks making them both more likely and exposed to greater impact. Our reliance on inter-connected devices means the impact of cyberattacks is greater than ever before. It is more than possible, it is probable that one day our laptops, smart phones, TVs, toasters, and even our bodies* will become the target of individuals with less than the best intentions, making them unusable, possibly permanently. Dan will discuss the opportunities that exist for the engineer who is fascinated, like him, in protecting the cloud, his customers, and the planet. He'll discuss the broad range of opportunities

	and aptitude required for these roles from a risk manager like him, to a compliance officer, to a member of a Red, Orange or Blue team. *https://www.washingtonpost.com/news/the-switch/wp/2013/10/21/yes-terrorists-could-have-hacked-dick-cheneys-heart/
	BIOGRAPHY: Dan is a Technical Project Manager at Google in the Risk and Compliance CISO division of Cloud. Dan's team works with SWE's (Software Engineers) to identify, assess, prioritize and bring to resolution some of Google's largest risks. Along the way, Dan's team works with individual teams to embed risk management best practices into their SDLC. Prior to Google, Dan was the CIO of BlueMatrix, a global financial services private cloud provider for nearly a decade. Dan spent the first 15 years of his career on Wall Street at JP Morgan and Goldman Sachs writing security based software. Dan earned a Masters in Computer Science from Columbia in 2006 and holds three patents for his work in that space. Dan graduated from the University of Scranton in 1999 with degrees in Computer Science and Mathematics.
Oct-28-2022	**First IT Job and Future Career Path**
	Dave Wolfe '92
	ABSTRACT: Your college courses prepared you for all the latest and greatest technology out there. You have the knowledge to parse a database query, replace a video card in a server, and troubleshoot lost packets in a core router. Other courses taught you accounting principles and organizational skills for IT project management. Plus, you are great at helping others with resolving their computer issues. It is time to take all that knowledge and utilize it in your first place of employment. But what do you look for in a job? What kind of questions will they ask you? How to you stand out among the other 25 candidates vying for the same position? Finally, what is a career path, and why is it important to you? Dave will discuss what IT employers are looking for today in potential employees. You will learn about the skillsets needed for your first job. Dave will review what it is like to go on your first interview as well as questions you might hear from the interviewer. Once you are hired, what happens next? What does a typical first day or first week look like? Finally, where do you see yourself in 1, 2, and 3 years. How about 5-10 years?
	BIOGRAPHY: David Wolfe is the East Coast IT Manager for Deluxe Media. Deluxe Media is the global leader in media and entertainment services for film, video, and online content. Since 1915, Deluxe has been the trusted partner for the world's most successful Hollywood studios, independent film companies, TV networks, exhibitors, advertisers, and others, offering best-in-class solutions in post-production, distribution, asset and workflow management, and cloud-based technologies. Throughout the years as a manager, Dave has interviewed many exceptional candidates as well as trained many employees. Some of these new hires are new to the world of IT positions, while others are seasoned professionals. Prior to working at Deluxe, Dave worked at Pride Mobility as a Systems and Network Senior Administrator, at Highlights for Children as Manager of Tech Services, and held several other IT engineering and administration positions in his 30-year IT career. Dave is a lifelong resident of Moosic and graduated from the University of Scranton with a bachelor's in Computer Information Systems in 1992.

Nov-11-2022	**Considering Graduate School? Things to know from a panel that has done it.**
	Alumni Panel: Chris Filachek '96, Dr. Frank Klassner '88, Mary Predenkoski '87, Dr. Joe Touch '85
	ABSTRACT: What's next after you complete your Bachelor's Degree? Many choose to begin their career, earn money and pay back student loans, while others continue their education for more advanced degrees. Some go directly to Graduate School, while others work a few to many years and then decide to continue their education. Studies have shown MS degrees in Computer Science earn an average of 15-25% more than equivalent BS degrees. You'll hear from a panel of Scranton graduates who choose different paths in continuing their education and things to consider if this is a path you are interested in pursuing.
	BIOGRAPHIES: Chris Filachek B.S. in Computer Science & Mathematics from the University of Scranton, 1996. M.S. in Computer Science from the University of Pittsburgh, 1997. Chris is a senior architect at IBM with over 20 years experience working on IBM's Transaction Processing Facility (TPF), a high-volume transaction processing system supporting the Travel (airlines, hotels, & car rentals) and Finance industries. Worked across a wide variety of areas, including core operating system functions, C/C++ and Java runtime environments, & database managers. Dr. Frank Klassner BS Computer Science 1988 University of Scranton BS Electronics Engineering 1988 University of Scranton MS Computer Science 1990 University of Massachusetts/Amherst PhD Computer Science 1996 University of Massachusetts/Amherst Frank is a Professor at Villanova University. He is technical advisor for the Computer Science Vatican Internship program and Director of the school's Center of Excellence in Enterprise Technology. His teaching and research interests include VR, educational robotics, and AI. Mary Predenkoski BS 1987 University of Scranton, Computer Science MS 1991 The Johns Hopkins University, Computer Science Mary is a Senior Executive at the Department of Defense (DoD) where she's responsible for the delivery of computing systems, repositories, analytic capabilities and customer engagement services for DoD and the Intelligence Community. Dr. Joe Touch BS 1985 Univ of Scranton, Biophysics and CS MS 1987 Cornell Univ, CS PhD 1992 Univ. Pennsylvania, CS Joe is a Principal Scientist at the Aerospace Corporation, where he supports satellite networking programs. He also was research faculty at USC for 25 years, where he developed recursive networking principles, quantum networks, and digital optical computing.
Dec-02-2022	**Student Internships, Research Experiences, Etc.**
	Current Student Panel

	Students will present summaries of recent and current experiences they have undertaken. This will be followed by a panel format meant to encourage discussion and Q & A among all present. Tyler Cichetti '24 - Bausch + Lomb Christian Di Troia '24 - Galaxe Solutions Robert Drehmann '23 - SkillSurvey Jonathan Janosky '25 - Tuxedo by Sarno Owen Kealey '23 - Square Amanda Lamphere '23 - Susquehanna International Group Henry Lembo '23 - Nasa Ames Research Center Anthony Lucchese '23 - Edward Jones Morgan McGuire '23 - SkillSurvey Thomas Meehan '23 - Sho Technology Thomas Melody '24 - Obscurity Labs Robert Naughton '23 - Zudy Joshua Walker '23 – SkillSurvey
Jan-27-2023	**Faculty Panel on Academic Integrity**
	Panelists: Dr Yaodong Bi, Prof. Danny Jackowitz, Prof. Paul M. Jackowitz, Prof. John Kaufman, Dr. Robert McCloskey, Prof. Richard Plishka
	Abstract: The primary purpose of this meeting and panel is to openly present and discuss the matter of academic integrity, specifically as it pertains to the educational activities undertaken within the Department of Computing Sciences.
Feb-17-2023	**Internet Policy and Piracy: the Good, the Bad, and the Practical**
	Dr. Joe Touch '85
	Abstract: The talk discusses the challenges of developing Internet policy and legislation, highlighting the intended - and often unintended - practical implications of various approaches. It explores the evolution of information property rights and technology, from Gutenberg to the present day, as examples of similar attempts to balance the rights of producers, distributors, and consumers. It also addresses the interaction between social engineering and technology engineering of the FCC's Network Neutrality, the Congressional SOPA/PIPA and OPENact, attempts to define an Internet Bills of Rights, and ICANN's creation of new DNS "top level domains".
	Biography: Dr. Joe Touch BS 1985 Univ of Scranton, Biophysics and CS MS 1987 Cornell Univ, CS PhD 1992 Univ. Pennsylvania, CS Joe is a Principal Scientist at the Aerospace Corporation, where he supports satellite networking programs. He also was research faculty at USC for 25 years, where he developed recursive networking principles, quantum networks, and digital optical computing.
Feb-24-2023	**Securing the Defense Industrial Base**
	Nick DelRosso '00
	Abstract: To provide reduce the compromise of Controlled Unclassified Information (CUI), the Department of Defense (DoD) implemented Defense Federal Acquisition Regulation Supplement (DFARS) 252.204-7012. Although the regulation traces well before 2017, compliance became mandatory by December 31st, 2017. If compliance was mandatory over five years ago, why are so many contractors failing to implement mandatory security controls and what does it imply about the cybersecurity posture of our Defense Industrial Base (DIB)?

	Biography: As the Defense Contract Management Agency (DCMA) Defense Industrial Base Cybersecurity Assessment Center (DIBCAC) Director, Nicholas (Nick) DelRosso Jr. oversees DCMA's cybersecurity assessments of the Defense Industrial Base (DIB) based upon Defense Federal Acquisition Regulation Supplement (DFARS) 252.204-7012. Prior to this position, he served as a Team Chief for the DIBCAC. In this capacity, he supervised a team which conducted cybersecurity assessments of the DIB. DelRosso has also served as Software Surveillance Specialist, Computer Engineer, and Support Program Integrator within DCMA. He has software development experience with a defense contractor and program experience as part of a Federally Funded Research and Development Center (FFRDC). DelRosso earned a Bachelor of Science in Computer Science from The University of Scranton (1997-2000) and his Master of Science in Computer Engineering from Villanova University.
Apr-28-2023	**ACM Distinguished Speaker Presentation - Software Engineering and Data Science**
	Dr. Vijayalakshmi Saravanan
	Abstract: Motivated by recent advancements in AI and Data Science in various research areas, in this tutorial, we plan to emphasize the importance of these techniques and highlight how it helps to predict and prevent techniques used in various application domains. We start with presenting on various ML algorithms such as Naïve Bayes, KNN, Decision trees, SVM and ANN. We also cover Data Science technique, challenges and issues associated with solutions.
	Biography: Dr. Vijayalakshmi Saravanan is currently working as Assistant Professor, Computer Science, at the University of South Dakota. Prior to this, she was a Visiting Assistant Professor, Computer Science, Vassar College, NY and an Adjunct Faculty at Rochester Institute of Technology, USA. Earlier she was a Postdoctoral Associate at University at Buffalo, SUNY, USA and University of Waterloo, Canada under the prestigious "Schlumberger Faculty for the Future" Fellowship award (2015-2017). She completed her Ph.D. under the prestigious Erasmus Mundus EU-Govt Fellowship award at Malardalen University, Sweden as a research exchange student. Prior to this, she was Assistant Professor of Practice at UTSA, USA. She is serving as a program committee member for reputed conferences & journals such as GHC, SIGCSE and Springer. Her research interests include Power-Aware Processor Design, Big Data and SW/HW Co-Design of MultiCore Architecture. She is also a lead editor for Pattern Recognition Letters (2020), Special Issue of Multimedia Tools and Applications (2020) and CRC Press Taylor & Francis, USA. She is a Senior Member of IEEE, ACM, ACM Distinguished speaker, CSI and Chair of IEEE WIE Affinity Group at VIT University during 2009-2015, Chair of NPA (National Postdoctoral Association) Annual Meetings and a Board Member of N2WOMEN. She is also a recipient of SRP-HPC fellow.
May-12-2023	**Student Projects Fair (in LSC)**
	Presenters and Project Titles

David DiCesare CS ‘23 SE ‘24	Diamond Lineup Management
Henry Lembo AC ‘23	Army Fitness Web Application
Morgan McGuire CS ’23 SE ‘24	VaryTrade
James P. Fox CS ‘25	PepPlus: An open source implementation of P.M.J's pep9i written in python
Clarence Gallagher SE ‘23	LookingForGroup - A Tabletop RPG Social Network
Tim Gallagher CS and PHIL ’23 SE ‘24	2D RPG Game Engine
Nicholas Guerra CS ‘24	A Review of 'Climatology of Medium-Scale Traveling Ionospheric Disturbances Observed by the Midlatitude Blackstone SuperDARN Radar
Cuong D. Nguyen CE and CS ‘23	Intelligent Robotic Arm
Robert D. Troy EE ‘24	Creating a Mixer with an AC Motor Drive

Owen Kealey CS ‘23	E-Squared Email Encryption
Amanda Lamphere MATH and CS ‘23	Secure Image Sending
Anthony Lucchese CS and MSCI ‘23 Jacob Fink CS ‘23 Thomas Melody CS ‘24	Encrypted Messaging System
Thomas J. Meehan CS ‘23	PianoPlaybook—An iOS Piano App That Stores the Notes You Play
Bradley Hnatow AC ‘23 Brian Memmen CS ‘23	Building Databases through JSON
Shane Novitsky CS ’22 SE ‘23	Hyper-Health – A Blockchain Solution for Medical Record Transactions

Abstract: Students will present summaries of recent and current projects which they have undertaken, including but not limited to undergraduate Capstone Projects and graduate Thesis Projects.

Concurrent presentation sessions will be held in five rooms on the first floor of the Loyola Science Center, LSC114, LSC 116, LSC118, LSC125 and LSC127, with cohorts of approximately ten students each attending three sessions over the scheduled seventy-five minute period.