Dominic Sellitto, CISSP

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OVERVIEW

Dominic is an experienced educator adept at leveraging his executive-level expertise to prepare students on their path to becoming future leaders. Dominic's educational philosophy is centered on preparing students for their careers by providing them with a combination of process-focused learning, hands-on experience with leading technologies, and strategies for effective communication. In past roles as a lead consultant and virtual Chief Information Security Officer, Dominic helped organizations by driving strategic planning and tactical execution of tasks to support building and maintaining robust information security programs. Dominic's work has allowed him to build relationships with a variety of companies ranging from SMBs tolarge enterprises across industries (including healthcare, retail, financial, hospitality, and industrial sectors).

EDUCATION

University at Buffalo, The State University of New York

Master of Science, Management Information Systems, 6/2014
UB School of Management Student Achievement Award recipient

Certificate of Advanced Study, Information Assurance, 6/2014

Bachelor of Science, Business Administration with Honors, 6/2013

PUBLICATIONS,

Publications: Smith, S.D. and Sellitto, D, White Paper: ***Invisible Threats: Accessing the Heart of Machine Learning*** (Hidden Layer Grant Funded, 2023), Sellitto, D. and Newell, D., ***White Paper: Vulnerability Assessment*** (ISACA, 2017)

CERTIFICATIONS, AND LICENSES

Certifications: Certified Information Systems Security Professional (CISSP) - ISC^2 Member #544426

Digital Badges: Hands On Essentials – Data Warehouse (Snowflake), Connect to and Transform Data (Tableau), AWS Academy Educator (Amazon Web Services)

ACADEMIC EXPERIENCE

University at Buffalo, The State University of New York, Amherst, NY
Clinical Assistant Professor, Department of Management Science and Systems, 2021-Present
- **Description:** Develops and teaches School of Management courses in Cybersecurity/Information Assurance, Cloud Data Warehousing, Data Engineering, Healthcare Analytics, Predictive Analytics, Data Visualization, Digital Forensics, and IT Management. These courses cover a variety of topics, including Cybersecurity Management, Privacy, Risk Management, IT Management, Computer Ethics, Computer Forensics (criminal and civil), Ethical Hacking, Data Analytics, Machine Learning, and Business Intelligence.
- **Audience:** MS Business Analytics, MS MIS, MS Finance, MBA, BS Business Administration, and MS Computer Science and Engineering students

Adjunct Instructor, Artificial Intelligence Institute, 2023-Present
- **Description:** Developed and taught School of Engineering Students a course in Storytelling with Data Visualization, which provides students with a conceptual baseline on key data visualization fundamentals (Gestalt Principles, Audience Considerations) and hands-on experience with industry-leading visualization platforms (Tableau and PowerBI).
- **Audience:** School of Engineering and Applied Sciences graduate students

Program Director, Online MS in Business Analytics, 2022-Present
- **Description:** Manages the day-to-day operations and long-term strategic planning for the Online Master of Science in Business Analytics program, which is one of the first fully online programs offered by the UB School of Management and is designed to provide an asynchronous structure to prepare students and current working professionals for exciting careers in Data Analytics and Business Intelligence. Develops online program foundations, as well as courses and curriculum for the program and engages with companies to facilitate student networking and job opportunities.
- **Audience:** MS Business Analytics, Working Professionals

Program Director, MS in Business Analytics, 2021-Present
- **Description:** Manages the day-to-day operations and long-term strategic planning for the Master of Science in Business Analytics program, which prepares students for exciting careers in Data Analytics and Business Intelligence. Develops courses and curriculum for the program and engages with companies to facilitate student networking and job opportunities. Additionally, engages with students in the development of their practicum requirements, including defining research objectives, identifying data for analysis, and deriving conclusions.
- **Audience:** MS Business Analytics, MS MIS

Adjunct Instructor, MGS410/610: Digital Forensics, 2018-2021
- **Description:** Developed and taught the School of Management course in Digital Forensics, which is focused on providing students with core knowledge of the digital forensics process, the application of that process to criminal investigations and corporate incident response scenarios, and the use of industry-standard tools (e.g., those used in evidence collection and data analysis) to enhance investigative capabilities
- **Audience:** MS MIS, MS Accounting, MBA, BS Business Administration, and MS Computer Science and Engineering students

Supervised Research Advisor, 2019-Present
- Primary care physician risk scoring methodology (MS MIS, 2023)
- Development of a new classroom engagement product (MS BA, 2022)
- Metaphone, a virtual reality product (MBA, 2022)
- ETL, data cleaning, and analysis (MS MIS, 2022)
- Analysis of identity and access management infrastructure through the lens of information security audit frameworks (Yash Vijay Jadhav, MS MIS, 2022)
- Impacts of the COVID-19 pandemic on cybersecurity (MS MIS, 2021)
- Considerations for automotive cybersecurity (MS MIS, 2020)
- Automobile forensic investigations (MS MIS, 2019)

Faculty Mentor, Gencyber Cybersecurity Camp, 2022
- **Description:** Provided guidance and oversight to student mentors and assisted in the development of content for, and management of, the UB Gencyber Cybersecurity camp, which is an annual STEM summer camp for high schoolers interested in cybersecurity. The camp, sponsored by the NSF and NSA, teaches students foundational elements of technical and managerial aspects of cybersecurity leveraging a summer camp-style program structure.
- **Audience:** Current high school students in New York

University Volunteer Service, 2012-Present
- Served as a Chair for the Eastern Great Lakes Analytics Conference as the lead for the industry component of the conference, securing guest speakers in data analytics and artificial intelligence from a variety of industries (2023)
- Developed and implemented a suite of tools using open-source generative artificial intelligence Large Language Models (LLMs) focused on privacy-focused process acceleration for School of Management Faculty, Staff, and Students. Micro-apps we developed to provide the following capabilities: exam creation and versioning, teaching assistant (with course content as context), career advisement (cover letter development, resume critique, job interview preparation), and more. Leveraged Python (with LangChain and Gradio) and LLAMA2-derived open-source models to create and deliver (2023)
- Developed and implemented a chat platform, using the open source Mattermost product suite, to provide students in School of Management Online Programs with a networking platform to overcome the communication challenges of an asynchronous program. Utilized OpenShift to deploy the platform with prepackaged and custom containers to facilitate a resilient architecture (2023)
- Developed a Python-based automation platform for managing startup proposal submission to NYS platforms on behalf of Professor Thomas Murdock UB School of Management CEL (2023)
- Faculty Lead on UB Global Programs "Tech Trek" trips (2022-Present)
- Developed a web-based platform to facilitate student event check-in and tracking, integrating with UB ID cards, which was used to identify and provide analytical reporting for more than 500 students for the UB School of Management Welcome Day (2022)
- Operated as faculty lead in charge of planning and delivery of the School of Management

Undergraduate Poster Competition (2022-Present)
- Volunteered as a mentor for the UB Gen Cyber Cybersecurity Summer Camp (2021)
- Led a team of School of Management students in the development of WNY Vaccine Hound, a web application designed to connect WNY residents with open COVID-19 vaccine appointments across hundreds of local providers (2021-Present)
- Developed a video training series on configuring a home computer lab during the transition to remote learning, assisting School of Management students who previously relied oncampus computer labs to complete technology-focused assignments (2020)
- Participated in the School of Management undergraduate open house and discussed educational pathways within the school with prospective students and their families (2019)
- Assisted students in professional development activities, including providing job seeking tips, interview preparation suggestions, acting as a reference (and/or writing letters of recommendation), and creating continuing education resources (2018-Present)
- Held advisory sessions with prospective MS MIS students to discuss their career ambitions and interests, courses available to them, and how to leverage the program and School of Management resources to succeed in their educational and career pursuits (2018-Present)
- Coordinated and marketed social events for the MS MIS program (2013)
- Developed and delivered student-driven lectures to supplement course content with additional hands-on technology training for MS MIS students (2013)
- Co-founder and committee member of the UB School of Management undergraduate research poster competition ("DEAL Expo") (2012-2014)

Multiple Institutions
Guest Lecturer and Workshop Facilitator, 2016-Present
- Lecture: Digital Forensics Considerations for Artificial Intelligence (University at Buffalo School of Management, November 2023)
- Keynote Speaker: The Future of Ransomware: WNY IT Strategic Alliance (Systems Personnel, November 2023)
- Session Moderator: Cybersecurity and Artificial Intelligence (Eastern Great Lakes Analytics Conference, November 2023)
- Keynote Speaker: BN360 & University at Buffalo School of Management: From Buzzwords to Business: Integrating Business Analytics and AI into your Workflow (Buffalo Niagara Partnership, June 2023)
- Lecture: Digital Forensics Considerations for Artificial Intelligence (University at Buffalo School of Management, April 2023)
- Lecture: Predictive Analytics Applications for Cybersecurity (University at Buffalo School of Management, April 2023)
- Keynote Speaker: CFO Strategies for Cybersecurity: WNY CFO Strategic Alliance (Systems Personnel, March 2023)
- Lecture: Data Collection in Digital Forensics (University at Buffalo School of Management, February 2023)
- Lecture: Network Forensics (University at Buffalo School of Management, December 2022)
- Lecture: Modern Digital Forensics (University at Buffalo School of Management, May 2022)
- Lecture: Email and Network Forensics (University at Buffalo School of Management, April 2022)
- Lecture: Securing Cloud-Based Productivity Platforms (University at Buffalo School of Management, April 2022)
- Keynote Speaker: Email Security: WNY IT Strategic Alliance (Systems Personnel, March 2022)
- Session Moderator: Innovation in Cybersecurity Leadership Panel (University at Buffalo School of Management, December 2021)
- Lecture: Introduction to Digital Forensics and Incident Response (University at Buffalo School of Management, December 2021)
- Workshop: Natural Language Processing Using Python (University at Buffalo School of Management, November 2021)
- Session Moderator: Introduction to Cybersecurity and Privacy Law (University at Buffalo School of Management, November 2021)
- Session Moderator: Product Management Professional Panel (University at Buffalo School of Management, October 2021)
- Lecture: Forensic Techniques for Network Incident Response (University at Buffalo School of Management, April 2021)
- Lecture: Privacy, Security, and Ethics in Data Analytics (University at Buffalo, MGS616,

December 2020)
- Lecture: Introduction to Network Forensics Using Wireshark (University at Buffalo School of Management, November 2020)
- Lecture: Data Privacy in a Connected World (University at Buffalo, MGS639, 2019)
- Workshop: Data Analysis Using Splunk (University at Buffalo School of Management, 2019)
- Lecture: Vulnerability Management (University at Buffalo, ISACA Club, 2019)
- Lecture: Ethical Hacking (Hilbert College, 2017)
- Lecture: Security Analytics (University of Rochester, 2016)

INDUSTRY EXPERIENCE

Loptr LLC, East Aurora, NY
Lead Cybersecurity Consultant, 2/2017-2/2021
- Operated as Chief Information Security Officer (CISO) on a fractional basis for clients, driving security program development, implementation, operation, strategic planning, and ongoing executive-level reporting
- Developed and implemented information security programs for clients, including foundational governance elements (policies, procedures, and standards), risk assessments, technical testing (vulnerability assessments and configuration audits), security training and awareness, security monitoring, and incident response plans
- Implemented security and compliance programs aligned with best-practice standards and regulatory drivers, including HIPAA, PCI DSS, SOC 2, HITRUST, NIST CSF, NIST SP 800-53, NYS SHIELD Act, and NYS DFS Cybersecurity Regulation 23 NYCRR 500
- Leveraged historical and real-time data, using common data analysis tools, to support KRI/KPI development and maintenance, drive strategic decision making, and facilitate tactical response to evolving threats
- Effectively managed a variety of projects at once, often engaging with multiple cross-industry client teams daily to support initiatives, develop deliverables, and manage evolving stakeholder expectations

Deloitte, Toronto, ON
Senior Consultant, Cyber Risk Services, 8/2016-2/2017
Consultant, Cyber Risk Services, 8/2014-8/2016
- Created, implemented, and executed information security and risk management policies and procedures for key retail, financial, and healthcare clients, including assisting on multiple implementations of GRC tools
- Assessed client security postures to identify gaps across systems and enterprise processes, culminating in the development of remediation strategies to ensure compliance with internal policies/standards, Canadian regulatory requirements (PHIPA, PIPEDA), and strategic compliance drivers (e.g., PCI DSS)
- Embodied a "shift left" approach to information security by developing and executing project security risk management processes to enforce requirements during early project phases for both waterfall and agile projects
- Regularly reported key findings, metrics, and recommendations to client senior leadership and project stakeholders

RESEARCH

How cybersecurity professionals shape artificial intelligence strategy within their organizations (In-Progress, 2023)
- **Role:** Co-PI
- **Co-Author:** Sanjukta Das Smith (Principal Investigator)
- **Primary Objective:** To determine the perceived risks and opportunities posed by AI to organizational cyber defense
- **Secondary Objective:** To identify the critical success factors (CSF) for AI strategy implementation from the cybersecurity perspective
- **Study Design:** Intensive interviews of current cybersecurity practitioners across a range of experience levels and industries
- **Current Status:** IRB Approved in 2022, interviews with subjects are proceeding throughout Spring 2023 targeting a sample size of 50 participants

GRANTS

U.S. Air Force Small Business Technology Transfer (STTR) Grant: Machine Learning Detection and Response for Space Force Ground Systems (Awarded, 2023)
- **Project Title:** Machine Learning Detection and Response for Space Force Ground Systems
- **Project Description:** This solution seeks to provide robust threat modeling to mitigate risk in order to improve security posture and supply chain integrity. UB researchers are seeking to collaborate with HiddenLayer in this Phase I STTR over a period of three months, where we

will focus on a product-market fit analysis for the Hidden Layer platform
- **Role:** Senior Personnel
- **Collaborators:** UB School of Management (Sanjukta Das Smith), UB Computer Science and Engineering (Siwei Liu), and Hidden Layer (Private Entity)
- **Funding Requested:** $22,500
- **Current Status:** Awarded and in progress

UB Office of Curriculum, Assessment, and Teaching Transformation Grant: Generative AI Seed Fund (Awarded, 2023)
- **Project Title:** E.A.S.E. (Educational AI Support for Everyone)
- **Project Description:** EASE is a versatile platform leveraging local Large Language Models (LLMs) to elevate faculty and student engagements with AI tools and improve learning outcomes across undergraduate and graduate coursework. This Swiss Army Knife-style software is designed to provide an expanding suite of AI-powered micro-applications to faculty and students with a focus on enhancing instructor efficiency and student learning.
- **Role:** PI
- **Funding Requested:** $5,000
- **Current Status:** Awarded and in progress

SUNY Innovative Instruction Technology Grant (IITG) (Awarded, 2023)
- **Project Title:** SPEAR and SHIELD: A cybersecurity attack and defense simulation for hands-on learners
- **Project Description:** The SPEAR and SHIELD cybersecurity simulation enables teams of remote learners to manage and defend a small-scale, corporate network, which is facing an ongoing cyberattack
- **Role:** Volunteer / Co-PI
- **Collaborators:** UB School of Management (David Murray, Kevin Cleary), UB Computer Science and Engineering (Shambhu Upadhyaya), SUNY Albany School of Business (Damira Pon), Westchester Community College Department of Computer Information Technologies (John Watkins), and Williamsville North High School (Julie Johnson)
- **Funding Requested:** $40,000
- **Current Status:** Awarded and in progress

MEDIA SPOTS

Fact Check-No deal between DuckDuckGo and Microsoft to track users online (Reuters, 2023)
- https://www.reuters.com/article/factcheck-duckduckgo-gates-track-idUSL1N3792HE

Inside the Underground World of Black Market AI Chatbots (The Daily Beast, 2023)
- https://www.thedailybeast.com/inside-the-underground-world-of-black-market-ai-chatbots

How Black Market AI Chatbots are Making it Easier for Criminals to Scam You (CBC's Day 6, 2023)
- https://www.cbc.ca/listen/live-radio/1-14-day-6/clip/16020776-how-black-market-ai-chatbots-making-easier-criminals

White House considering crackdown on firms selling Americans' data (The National Desk and 60+ Sinclair Media Group Stations, 2023)
- https://thenationaldesk.com/news/americas-news-now/biden-administration-considering-crackdown-on-firms-selling-americans-data

Do we really need an app for everything? (Vox, 2023)
- https://www.vox.com/money/23743915/iphone-android-apps-airline-dentist-pandemic-data-privacy-restaurant

Your Private Data Is Going to Train Chatbots—Here's Why You Should Care (Lifewire, 2023)
- https://www.lifewire.com/google-privacy-policy-ai-training-data-7557365

'Use Your Instincts,' Cybersecurity Experts Suggest to Think Before You Click (WKBW 7 News Buffalo, 2023)
- https://www.wkbw.com/news/local-news/use-your-instincts-cybersecurity-experts-suggest-to-think-before-you-click

'Holiday hammock' trend can put shoppers over budget and more items in landfills, UB experts say (Niagara Frontier Publications, 2023)
- https://www.wnypapers.com/news/article/current/2023/10/25/157554/holiday-hammock-trend-can-

put-shoppers-over-budget-and-more-items-in-landfills-ub-experts-say

Oracle Member Spotlight: Dominic Sellitto (Oracle, 2023)
- https://academy.oracle.com/en/about-success-spotlight-sellitto.html

Does Artificial Intelligence Pose a Threat to Humanity? (Lithuanian National Radio & Television, 2023)
- https://www.lrt.lt/mediateka/irasas/2000281363/pasaulio-5-ar-dirbtinis-intelektas-kelia-gresme-zmonijai

Eastern Great Lakes Analytics Conference Explores Data Analytics and AI's Impact on Business and Education (Bollyinside, 2023)
- https://www.bollyinside.com/news/education/eastern-great-lakes-analytics-conference-explores-data-analytics-and-ais-impact-on-business-and-education/

Ukraine and Russia Military and Cybersecurity Conflict (Multiple, 2022)
- https://management.buffalo.edu/about/buffalo-business/2022autumn/features/how-real-threat-cyberwarfare.html
- https://www.wgrz.com/article/tech/experts-wny-discuss-federal-cyberattack-warning-tied-ukraine-situation/71-17d2d8e1-7877-427d-a33e-667f34910eb2
- https://management.buffalo.edu/about/news/releases.host.html/content/shared/mgt/news/ub-school-management-expert-available-discuss-ukrainian-website-hacking.detail.html

Vaccine Hound Initiative (vaccinehound.org) (Multiple, 2021-2023)
- https://www.buffalo.edu/ubnow/stories/2023/02/vaccine-hound-sunset.html
- https://www.buffalorising.com/2021/03/wny-vaccine-hound/
- https://www.buffalo.edu/ubnow/stories/2021/04/vaccine-hound.html

PROFESSIONAL AFFILIATIONS

ISC^2: International, nonprofit professional information security association (2015-Present)

VOLUNTEER SERVICE

Tapestry Charter Schools: Internet Safety Seminar (2023)

Lockport Elementary School District: Cybersecurity Careers and Password Security guest speaker (2022)

Brookside Village: Homeowners association board member (2020-2022)

East Aurora High School: Mock interviewer, business students (2019)

East Aurora High School: Judge, student business plan presentations (2018)

DECA Competition: Judge, high school marketing presentations (2018)

Holland Central School District: Innovation Day judge and guest speaker (2017, 2018)

Holland Central School District: Cybersecurity club guest speaker (2017)

OTHER SKILLS & EXPERIENCE

Data Analytics Experience: Splunk, Python-based machine learning, data analysis, and natural language processing (e.g., nltk, spaCy, genism, Beautiful Soup, and Selenium), executive KRI/KPI development, security analytics (analyzing historical trends to drive strategic planning and tactical defense), data warehouse design and implementation, data pipeline/profiling/cleaning (OpenRefine, Talend ETL, SSIS), data visualization (Tableau, Power BI, Qlik), data mining (Orange, SAS, RapidMiner), AI image generation and model training (Stable Diffusion), AI chatbot application development and model training (Llama2 and other open source platforms)

Security and Risk Management Experience: Virtual/fractional CISO, secure SDLC (waterfall, agile), security awareness program development (including general security, physical security, phishing, incident response, ransomware, HIPAA Security Rule, PCI DSS, secure software development, and others), security policy/procedures/standards development, vendor security risk management, control framework development and assessments (aligned with HIPAA Security Rule, NYS SHIELD Act, NYS DFS Cybersecurity, ISO 27000 series, NIST CSF, NIST 800-53, CSA CAIQ, 18 CIS Controls, OWASP Top 10, HITRUST, PCI DSS, and others), cloud security management (including Office 365, AWS, Microsoft Azure Cloud, Heroku, and Drupal), forensic investigations (including the use of FTK, Autopsy/The Sleuth Kit, Volatility), incident management, vulnerability assessments (including the use of Nessus, Qualys, Nikto, and OpenVAS/Greenbone Vulnerability Manager), malware analysis (static

and dynamic), security monitoring (including the setup, configuration, management, and use of Splunk, AlienVault, and Perch), business continuity planning

DevOps Experience: Python, JavaScript, HTML, CSS, PowerShell, Django web application framework, SaaS cloud environment setup and management (including AWS, Heroku, and Azure Cloud), SQL, database technologies (including Oracle Database, SQL Server, MySQL, and Postgres)