

Dr. Matthew Canham

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Dr. Canham is an experienced technical researcher and former cybercrimes investigator for the Department of Justice. He is a skilled ambassador, accomplished at effectively interacting at all organizational levels, and a project manager specializing in user-centered security research and solution design. He leverages over twenty-four years of knowledge and experience in the cybersecurity, privacy, and social science research disciplines with a focus on identifying the influence of human behavioral on information security.

EXPERIENCE

AREA	YEARS
Designing and Leading Methodologically Sound Scientific Studies	24+
Leading and Conducting End-to-End Quantitative and Qualitative Research	24+
Authoring and Presenting Scientific Research	21
Briefing High-Level Stakeholders	10
Cybersecurity, Online Privacy, and Cybercrime Investigations	8
Security & Privacy Principles, Policies, Procedures, & Standards Development	6
Government contract Research and Development	5

BEYOND LAYER 7

1 Year

Chief Executive Officer

I am currently advising organizations on how to develop and implement insider threat programs, how to build maximally effective security awareness programs, and how to extract the most value from data stores.

UNIVERSITY OF CENTRAL FLORIDA

4 Years

Research Professor, School of Modeling and Simulation

I forged a new business relationship between academic research departments and the operational components of the university's information security office that combines external data ingest with survey data to create research driven employee security awareness programs with the integration of external metrics of performance.

DEPARTMENT OF JUSTICE

8 Years

Emerging Technology Program Manager • 2 Years

In this role, I developed and implemented a research strategy to identify and leverage emerging technologies and translate these into impactful and actionable law enforcement capabilities.

Investigator • 6 Years

In the field, I conducted investigations into cyber-breaches, intellectual property theft, corporate espionage, and other violations of Federal law. These investigations of sophisticated online threat actors required me to develop a keen sense of online operational tradecraft and sophisticated knowledge of cyber vulnerabilities and exploits.

Strategic Partnership Coordinator • 2 Years

Established a diversified partnership of FBI representatives, universities, government contractors, and local technology businesses to forge a strategy to mitigate the risk posed by advanced persistent cyber threats.

Post-Doctoral Scholar, Cyber Simulation Laboratory

University of Central Florida, Orlando, Florida

Ph.D., Cognition, Perception, and Cognitive Neuroscience (CPCN)

University of California, Santa Barbara

Dissertation: Cognitive Diversity in Dyadic Problem-Solving Groups.

M.A., Cognitive Psychology

University of California, Santa Barbara

Thesis: 'Influence of Knowledge on Eye Movements in The Interpretation of Weather Graphics.'

B.S., Psychology

Washington State University, Vancouver

Honors Thesis: 'When Time Flies: Skilled Memory and Time Transformation in Rock Climbers.'

Summa Cum Laude

CERTIFICATIONS

GCFE (GIAC Certified Forensics Examiner), Analyst Number 3790

GWAN (GIAC Certified Auditing Wireless Networks), Analyst Number 2665

GMOB (GIAC Mobile Device Security Analyst), Analyst Number 614

GCIH (GIAC Certified Incident Handler), Analyst Number 25579

GSEC (GIAC Security Essentials), Analyst Number 36358

RECENT PUBLICATIONS

Canham M., Posey C., & Constantino M. (2022). Phish Derby: Shoring the Human Shield Through Gamified Phishing Attacks. *Frontiers in Education*. 6:807277. doi: 10.3389/educ.2021.807277

Canham, M., Sütterlin, S., Ask, T. F., Knox, B. J., Glenister, L., & Lugo, R. (2021). Ambiguous Self-Induced Disinformation (ASID) Attacks: Weaponizing a Cognitive Deficiency. <https://doi.org/10.31219/osf.io/2kbf9>

Canham, M. (2021). Deepfake Social Engineering: Creating a Framework and Implementing Countermeasures. Black Hat USA, Las Vegas, NV.

Canham, M., Posey, M. C., Strickland, D., Constantino, M. (2021). Phishing for Long Tails: Examining Organizational Repeat Clickers and Protective Stewards. Sage Special Issue on Organizational Cybersecurity

Canham, M., Bockelman, P., & Posey, C. (2020). To Train, Or Not to Train: Exploring the Boundaries of Security Education and Training Awareness. 14th International Conference on Augmented Cognition. Copenhagen, Denmark

Crooks, C., Canham, M., McNeil, T., Muchlinski, D., & Sawyer, B. (2020). Understanding Online Information Operations: Development of an Influence Network for Scientific Inquiry Testing Environment (INSITE).

Canham, M. & Sawyer, B. D. (2019). Neurosecurity: Human Brain Electro-Optical Signals as MASINT. *American Intelligence Journal*.

CONTRACTS & GRANTS

As Primary Investigator

National Institute of Standards and Technology (NIST), "The Phishing Tails: An Examination of the Individual Traits of Repeat Clickers and Protective Stewards", Proposal Number: 2020-NIST-MSE-01, Matthew Canham (PI), Funded \$210,000.00

National Institute of Standards and Technology (NIST), "Investigating the Causes of Continual Phishing Susceptibility", Proposal Number: 2016-NIST-MSE-01, Matthew Canham (PI), Funded \$49,936.00

As Co-Investigator

Defense Advanced Research Projects Agency (DARPA), "Tracking Corporate Relationships at Scale with Automated Reasoning", Proposal Number: DARPA-RA-21-01, Paul Gazzillo (PI), Matthew Canham (Co-PI), Funded \$989,527.00.

Defense Advanced Research Projects Agency (DARPA), "A Cyber-team SMART Room for Effectively Assessing Immersive Collaborative Reverse Engineering", Proposal Number: HR001118S0057, Joseph Kider Jr. (PI), Stephen Fiore (Co-PI), Matthew Canham (Co-PI), Funded \$999,990.00.