MARC CANELLAS, J.D., PH.D.

www.marccanellas.com marc.c.canellas@gmail.com

EDUCATION

NEW YORK UNIVERSITY SCHOOL OF LAW, J.D., 2021

Honors: Jacobson Leadership Program in Business and Law Scholar, Professor Helen Scott

Cybersecurity Service Scholar, Professor Randy Milch

NYU Law Vanderbilt Medal

Activities: Research Assistant, Professors Erin Murphy, Tony Thompson, and Ryan Bubb

Teaching Assistant, Critical Infrastructure, Prof. Rob Silvers

Internships: Brooklyn Defender Services, Science & Surveillance Project, Brooklyn, NY

Bronx Defenders, Criminal Defense Practice, Bronx, NY

Neighborhood Defender Service of Harlem, Family Defense Division, New York, NY

Federal Defenders of New York, Southern District, New York, NY

*Intern under Chris Flood and Jennifer Willis (now Hon. Jennifer Willis, Magistrate

Judge, Southern District of New York)

GEORGIA INSTITUTE OF TECHNOLOGY, Ph.D., Aerospace Engineering, 2017

Honors: Best Poster Award, Max Planck Institute for Human Development, Berlin, Germany

Graduate Student Government Lifetime Achievement Award

Campus Life and Community at Tech Scholarship

National Science Foundation (NSF) Graduate Research Fellowship Program

Activities: President, Graduate Student Government (chief advocate for 11,000+ graduate students)

UNIVERSITY OF MISSOURI, B.S., magna cum laude, Mechanical Engineering, 2012

Honors: University of Missouri Unsung Hero Award

Ronald E. McNair Post-Baccalaureate Achievement Program Scholar

Activities: Research Assistant, Astrophysics and Orbital Mechanics, Professor Sergei Kopeikin

TEACHING AND RESEARCH INTERESTS

Evidence, Criminal Law, Criminal Procedure, Law of AI and Technology, Privacy Law

PUBLICATIONS

Law Review Articles

Constitutional Resistance: Self-Defense Against Unlawful Federal Force under 18 U.S.C. § 111, 73 UCLA L. REV. DISCOURSE (forthcoming 2025) (SSRN)

Mo AI, Skidmore *Problems: Governing in Our* Loper Bright *Era*, 41 J.L. & Pol. (forthcoming 2025) (SSRN)

<u>Abolish and Reimagine: The Pseudoscience and Mythology of Substance Use in the Family Regulation System,</u> 30 GEO. J. ON POVERTY L. & POL'Y 169 (2022) (SSRN)

Works in Progress

Machine-Generated Evidence (job talk paper)

[Prior title: Challenging Carceral Software]

- CrimFest, University of Pennsylvania Law School, July 2025
- Privacy Law Scholars Conference, UCLA School of Law, May 2025 (commenter: Orin Kerr)
- Texas Criminal Defense Lawyers Assoc., Forensics Conference, Oct. 2025 (CLE) (forthcoming)
- National Association of Criminal Defense Lawyers, *Making Sense of Science: Forensic Science, Technology & the Law*, April 2025 (CLE) (presentation recording sold as a NACDL product)
- New York State Defenders Association, April 2025 (CLE)
- Legal Aid Society of New York, *Questioning Forensics*, Dec. 2024 (CLE)
- Maryland Office of the Public Defender, *Annual Conference*, May 2024 (CLE)

Anti-Discrimination Law's Cybernetic Black Hole

- NYU Academic Careers Program Scholarship Clinic, 2024
- Best Paper Award, We Robot, 2021

Peer-Reviewed Scientific and Engineering Articles

<u>Decoding Human Behavior with Big Data? Critical, Constructive Input from the Decision Sciences</u>, 43 AI MAG. 126 (2022) (with Konstantinos Katsikopoulos)

- **Top 10%** of AI Magazine articles downloaded within 12 months of publication (2023)

<u>Defending IEEE Software Standards in Federal Criminal Court</u>, 54 IEEE COMPUT. 14 (2021)

- Cited in Brief of Amici Curiae ACLU, ACLU of Massachusetts, EFF, NACDL, & MACDL in Support of Appellee & Affirmance, Commonwealth v. Arrington, 493 Mass. 478 (2024) (brief challenged the reliability of the cell phone frequent location history (FLH); court ultimately held that the trial court properly excluded FLH evidence)
- **Cited in** *Special topics—Probabilistic software*, 4 Mod. Sci. Evidence § 30:34 (2024-2025)

<u>Unsafe at Any Level: The U.S. NHTSA's Levels of Automation Are a Liability for Automated Vehicles</u>, 63 COMMUN. ACM 31 (2020) (with Rachel Haga)

Heuristic Information Acquisition and Restriction for Decision Support, 47 IEEE TRANSACTIONS ON HUM.-MACH. SYS. 939 (2017) (with Karen Feigh)

<u>Toward Simple Representative Mathematical Models of Naturalistic Decision Making Through Fast-and-Frugal Heuristics</u>, 10 J. COGN. ENG. DEC. MAK. 255 (2016) (with Karen Feigh)

<u>Lost in Translation: Building a Common Language for Regulating Autonomous Weapons</u>, 35 IEEE TECHNOL. SOC. MAG. 50 (2016) (with Rachel Haga)

<u>Accuracy and Effort of Decision-Making Strategies with Incomplete Information: Implications for Decision Support System Design</u>, 45 IEEE TRANSACTIONS ON HUM.-MACH. SYS. 686 (2015) (with Karen Feigh and Zarrin Chua)

Selected Non-Academic Publications

Trump's New Favorite Law for Criminalizing His Opponents, SLATE (May 29, 2025)

<u>Realistic But Not Real: The Deep Challenges of Deepfakes</u>, DECRYPTING A DEFENSE: A NEWSLETTER FROM THE LEGAL AID SOCIETY OF NYC'S DIGITAL FORENSICS UNIT (Sep. 9, 2024)

TRUSTWORTHY EVIDENCE FOR TRUSTWORTHY TECHNOLOGY: AN OVERVIEW OF EVIDENCE FOR ASSESSING THE TRUSTWORTHINESS OF AUTONOMOUS AND INTELLIGENT SYSTEMS, LAW COMMITTEE OF THE IEEE GLOBAL INITIATIVE & IEEE-USA AI POLICY COMMITTEE (Sept. 29, 2022) (with Jeanna Matthews and Bruce Hedin)

- Cited in Brief of Amici Curiae ACLU, ACLU of Massachusetts, EFF, NACDL, & MACDL in Support of Appellee & Affirmance, Commonwealth v. Arrington, 493 Mass. 478 (2024) (brief challenged the reliability of the cell phone frequent location history (FLH); court ultimately held that the trial court properly excluded FLH evidence under Daubert)
- Cited in Brief of Amici Curiae the Innocence Project in Support of Appellant and Reversal of the Denial of a New Trial, Commonwealth v. Rios, 496 Mass. 11 (2025) (brief challenged the reliability of ShotSpotter technology and the court vacated and remanded on some charges, noting that a Daubert hearing with regard to ShotSpotter should be allowed if requested)

<u>A Post-Election Trump Firing Makes the Case for an Independent, Regulatory CISA</u>, JUST SECURITY (Dec. 1, 2020)

<u>Voting Machines Must Become More Usable: Lots of Voting Machines Are Really Confusing, and on Election Day, It Showed</u>, SLATE (Nov. 20, 2018)

Was Your Voting Machine Hacked? Without More User-Friendly Devices, We May Not Know, JUST SECURITY (Nov. 16, 2018)

Appellate Briefs with Oral Arguments

Harvin v. State, 263 Md.App. 326 (2024), cert. denied, 489 Md. 338 (2025)

- Holding that the trial court did not abuse its discretion in admitting DNA evidence generated from TrueAllele DNA software under Maryland Rule 5-702 and *Daubert-Rochkind*
- Video recording (argued appeal and authored cert petition)

Goss v. Commonwealth, No. 0423-23-4, 2024 WL 3416954 (Va. Ct. App. July 16, 2024)

- Affirming trial court's decision to hold separate sentencings for probation violations from a single report "considered" at a single hearing, without being "the same course of conduct." (briefs only)

Kartozia v. Commonwealth, No. 1633-22-4, 2024 WL 923107 (Va. Ct. App. Mar. 5, 2024), *cert. granted* (Sept. 13, 2024), *rev'd* 915 S.E.2d 754 (Va. 2025)

- Court of Appeals reversed trial court's refusal to instruct the jury on the claim of right defense to trespass, vacated, and remanded for retrial; then, the Virginia Supreme Court reversed the Court of Appeals and instituted final judgment. (argued at trial, briefed and argued at Court of Appeals)

Sherman v. Commonwealth, No. 1368-22-4, 2023 WL 5534580 (Va. Ct. App. Aug. 29, 2023)

- Holding the trial court did not abuse its discretion imposing four years of incarceration for drinking alcohol in violation of probation. (argued violation, briefed and argued appeal)

TEACHING EXPERIENCE

Teaching Assistant

Critical Infrastructure, NYU School of Law, Prof. Rob Silvers (2021)

Aerospace Engr. 3521: Flight Dynamics, Georgia Institute of Technology, Prof. Karen Feigh (2013)

Selected Academic and CLE Presentations

AI in the Courtroom, National Judicial College, Santa Fe, NM. July 2026. (with Andrea Roth)

AI and Criminal Law, Santa Fe Institute, Santa Fe, NM. Sept. 2025. (organizer, presenter)

<u>Path Forward for AI in Forensic Science</u>, <u>Harnessing AI for Forensics</u>. National Institute of Standards and Technology (NIST). Washington, D.C. July 2025. (program committee, presenter, moderator)

<u>Policy, Legal, and Regulatory Issues in AI Autonomous Software Agents</u> [Video] <u>Artificial Intelligence, Autonomous Systems, and Law.</u> Silicon Flatirons Center for Law, Technology, & Entrepreneurship. University of Colorado Law School. Boulder, CO. Mar. 2025. (panelist)

Everything You Wanted to Know About Carceral Software and Generative AI, But Were Too Afraid to Ask, Maryland Office of the Public Defender. Baltimore, MD. Mar. 2025. (CLE)

AI 101: Intro to Carceral Software & Generative AI, AI Factor: Defending Clients in the Digital Age. Maryland Criminal Defense Attorneys Assoc. Cantonsville, MD. Mar. 2025 (CLE)

<u>Litigating AI-Generated Child Sex Abuse Material: Technical and Legal Challenges</u>, <u>AAFS Annual Scientific Conference</u>. American Acad. of Forensic Science. Baltimore, MD. Feb. 2025.

<u>AI in Space and Telecom</u>, Federal Communications Bar Association – AI, Machine Learning & Robotics, International Telecom., and Wireless Telecom. Committees. June 2021. (CLE) (panelist)

AI: Triage in a Pandemic. Practising Law Institute. New York, NY. Jan. 2021. (CLE) (panelist)

<u>Regulation, Audits, and Setting Standards/Kitemarks in AI [Video] Validate AI Conference.</u> Validate AI and Southampton University, United Kingdom. Dec. 2021. (panelist)

The search for the Unicorn: Is there such a thing as a unified, values-driven, evidence-based AI governance framework? [Video] [Report] The Athens Roundtable on Artificial Intelligence and the Rule of Law. IEEE Standards Association, The Future Society. Nov. 2020. (moderator)

<u>Automation, Robotics, Artificial Intelligence and the Future of Work</u>. 60th Constitutional Convention. Texas AFL-CIO. San Antonio, TX. July 2019. (panelist)

GRANTS

\$380,000, Office of Naval Research, Department of Defense, Proactive Decision Support through Information Modification, 2017-2020 (PI: Karen Feigh)

PROFESSIONAL EXPERIENCE

$MARYLAND\ OFFICE\ OF\ THE\ PUBLIC\ DEFENDER, \textit{Forensics Division},\ 2024-present$

Assistant Public Defender III

- Litigate expert evidence across Maryland at trial, appeals, and post-conviction, including DNA software, genetic geneology, digital forensics, geofence, AI-generated audio and video, abusive head trauma, ballistics, and arson, for cases alleging murder, manslaughter, abuse and neglect.

VIRGINIA INDIGENT DEFENSE COMMISSION, *Arlington County and Falls Church* 2021–2023 Assistant Public Defender I

- 180+ client caseload for charges ranging from misdemeanors to violent felonies including manslaughter, malicious wounding, possession of child pornography, aggravated sexual battery.
- Primary youth defender in the Office with a caseload of 40+ youth clients.

U.S. REPRESENTATIVE DEREK KILMER (D, WA-6), 2017-2018

IEEE-USA Congressional Science and Technology Fellow

- Responsible for policy, media, and appropriations for a portfolio including justice, surveillance, homeland security, defense, space, AI, science and technology, among others.

GEORGIA INSTITUTE OF TECHNOLOGY, Cognitive Engineering Center, 2012-2017

Graduate Researcher and Post-Doctoral Researcher

- Designed, tested, and evaluated decision support systems for military commanders and warfighters in complex, time-pressured, mission-and safety-critical environments (known as C2D2E) within aviation and military domains, leveraging behavioral psychology and economics.

PROFESSIONAL SERVICE

Professional Organizations

Privacy Law Scholars Conference (PLSC) (2025-present, Junior Scholars Council inaugural member)

<u>Institute for Electrical and Electronics Engineers (IEEE)</u> (2025-present, Senior Member (top 8% of ~486,000 members based on experience & significant achievements); 2014-2025, Member)

<u>IEEE-USA Artificial Intelligence Policy Committee</u> (2025-present, Advisory Board; 2020-2021, Chair; 2018-2020, Vice-Chair; Co-Founder and Member, 2016–present) [advising state and federal policymakers including White House Office of Science and Technology Policy and the Congressional AI Caucus on issues including <u>justice</u>, <u>privacy</u>, <u>workforce</u>, and the <u>electric grid</u>)

IEEE-USA Government Fellows Committee (2025-present) [selection committee for federal fellowships]

IEEE 1012 Std. for System, Software, and Hardware Verification & Validation (2024-present, Member)

American Bar Association (2019-2020, Chair, Oversight Committee, AI Legal Ethics Working Group)

Peer Reviewer for Scientific and Engineering Journals

Behavior Research Methods; Communications of the ACM; Frontiers in Big Data; IEEE Access; IEEE Computer; IEEE Transactions on Automation Science and Engineering; IEEE Transactions on Human-Machine Systems; Nature Human Behavior