

## **MARC CANELLAS, Ph.D.**

J.D. Candidate, 2021

New York University School of Law

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### **EMPLOYMENT**

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#### **Bronx Defenders, Criminal Defense Practice**

*Legal Intern*, Summer 2020.

#### **Professor Erin Murphy**

New York University School of Law.

*Research Assistant*, Summer 2020

#### **ABA AI Legal Ethics Working Group**

*Chair*, Controls and Oversight Committee, 2020–present.

#### **Professor Ryan Bubb**

New York University School of Law.

*Research Assistant*, 2019–present.

#### **Federal Defenders of New York, Southern District**

*Legal Intern*, 2019–present.

#### **IEEE-USA Artificial Intelligence and Autonomous Systems Policy Committee**

*Vice-Chair*, 2018–present.

*At-Large Voting Member*, 2016–2018.

#### **Neighborhood Defender Service of Harlem, Family Defense Practice**

*Legal Intern*, Summer 2019.

#### **Professor Tony Thompson**

New York University School of Law.

*Research Assistant*, Summer 2019.

#### **U.S. Representative Derek Kilmer (WA-6)**

United States House of Representatives.

*IEEE Congressional Science and Technology Fellow*, 2017–2018.

#### **Georgia Institute of Technology, School of Aerospace Engineering, Cognitive Engineering Center**

*Postdoctoral Research Fellow*, 2017.

*Graduate Research Assistant*, 2012–2017.

### **EDUCATION**

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**J.D.**, New York University, (exp) 2021.

Article Selection Editor, *N.Y.U. Review of Law and Social Change*, 2020–present.

Research Assistant, Professor Erin Murphy, Summer 2020.

Federal Defender Clinic, 2019–present.

Founder and Vice President, Rights over Tech, 2019–present.

Research Assistant, Professor Ryan Bubb, 2019–present.  
Staff Editor, *N.Y.U. Review of Law and Social Change*, 2019–2020.  
Research Assistant, Professor Tony Thompson, Summer 2019.  
Jacobson Leadership Program in Business and Law Scholar.  
Cybersecurity Service Scholar.  
Dean's Scholarship.

**Ph.D., Aerospace Engineering, Georgia Institute of Technology, 2017.**

Best Poster Award, Max Planck Institute for Human Development, Summer Institute on Bounded Rationality, 2016.  
Graduate Student Government Mitch Keller Lifetime Achievement Award.  
Campus Life and Community at Tech Scholarship.  
President, Graduate Student Government, 2015-2016.  
National Science Foundation Graduate Research Fellowship.  
National Defense Science and Engineering Graduate Fellowship (declined).  
Colonel Leslie Callahan Memorial Fellowship.  
Sam Nunn Security Program Fellow, 2014-2015.  
Goizueta Foundation Fellowship.

**B.S. Mechanical Engineering, University of Missouri, *magna cum laude*, 2012.**

University of Missouri Unsung Hero Award.  
Endorsed for the Rhodes, Marshall, and Mitchell Scholarships.  
Conference Founder, Engineering Connections between Politics and Science for the 21<sup>st</sup> Century.  
Ronald E. McNair Post-baccalaureate Achievement Program Scholar.  
Engineering Ambassador, College of Engineering.  
Lead Mechanical Engineer, “TigerGen II” Hydrogen Car Team.

**GRANTS**

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1. *Proactive Decision Support through Information Modification*  
3-year Research Grant, Command Decision Making Program, Code 34, Office of Naval Research (with Karen Feigh).

**WRITING**

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**Law Publications**

- [in prep] A Love Letter from Cognitive Engineers to the Robot Lawyers.  
(with Matthew J. Miller, Yosef S. Razin, and Rachel A. Haga).
  - [in prep] Critical Cybernetic Theory.  
*NYU Review of Law and Social Change*.
1. Autonomous Systems and Domestic Security.  
*Penn State Journal of Law & International Affairs*.

(expected) 2020

## Law Conference Publications

1. [Framing Human-Automation Governance: A New Modus Operandi from Cognitive Engineering.](#)  
(with Matthew Miller, Yosef Razin, Rachel Haga, Dev Minotra, and Raunak Bhattacharyya).  
*WeRobot*.  
2017.

## Scientific Publications in Peer-Reviewed Journals

- [In Prep] Humans and Robots: Turning antagonists into teammates.  
[Marc Canellas](#), Matthew J. Miller, Yosef S. Razin, and Rachel A. Haga.
  - [In Prep] A General Linear Model of Judgment and Decision Making.  
[Marc Canellas](#), Sarah Walsh, and Karen Feigh.
  - [Under Review] Impact of Missing Information and Strategy on Decision Making Performance.  
[Marc Canellas](#), William Sealy, and Karen Feigh.
5. [Unsafe at Any Level: U.S. NHTSA's levels of automation are a liability for autonomous vehicle design and regulation. \(arXiv\)](#)  
[Marc Canellas](#) and Rachel Haga.  
*Communications of the ACM*.  
March 2020.
  4. [Heuristic Information Acquisition and Restriction for Decision Support.](#)  
[Marc Canellas](#) and Karen Feigh.  
*IEEE Transactions on Human-Machine Systems*.  
2017.
  3. [Toward Simple Representative Mathematical Models of Naturalistic Decision Making through Fast-and-Frugal Heuristics.](#)  
[Marc Canellas](#) and Karen Feigh.  
*Journal of Cognitive Engineering and Decision Making*.  
2016.
  2. [Lost in Translation: Building a Common Language for Regulating Autonomous Weapons.](#)  
[Marc Canellas](#) and Rachel Haga.  
*IEEE Technology and Society Magazine*.  
2016.
  1. [Accuracy and Effort of Decision-Making Strategies with Incomplete Information: Implications for Decision Support System Design.](#)  
[Marc Canellas](#), Karen Feigh, and Zarrin Chua.

*IEEE Transactions on Human-Machine Systems.*  
2015.

### **Scientific Publications in Peer-Reviewed Conferences**

3. [Toward Meaningful Human Control of Autonomous Weapons Systems through Function Allocation.](#)  
Marc Canellas and Rachel Haga.  
*IEEE International Symposium on Technology and Society (ISTAS).*  
2015.
2. [Heuristic decision making with incomplete information: Conditions for ecological rationality.](#)  
Marc Canellas and Karen Feigh.  
*IEEE International Conference on Systems, Man and Cybernetics (SMC).*  
2014.
1. [Accuracy and effort of decision making strategies with incomplete information.](#)  
Marc Canellas, Karen Feigh, and Zarrin Chua.  
*IEEE International Inter-Disciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support (CogSIMA).*  
2014.

### **Essays, Op-Eds, Public Writing**

2. [Voting Machines Must Become More Usable: Lots of Voting Machines Are Really Confusing, and on Election Day, It Showed.](#)  
*Slate.*  
November 20, 2018.
1. [Was Your Voting Machine Hacked? Without More User-Friendly Devices, We May Not Know.](#)  
*Just Security.*  
November 16, 2018.

### **Reports, Testimonies, and Public Letters**

3. [Testimony re: "Oversight - Follow up on Local Law 49 of 2018 in Relation to Automated Decision Systems Used by Agencies"](#) [Video]  
Written Testimony.  
*New York City Council, Committee on Technology*  
New York, NY, 2020.
2. [Recommendations to the New York City Automated Decision Systems Task Force.](#)  
Open Letter.  
(with coalition of technical and civil rights experts, advocates, and community members).  
August 17, 2018.
1. [Artificial Intelligence Research, Development and Regulation.](#)  
IEEE-USA Position Statement.

(with Ad-Hoc Artificial Intelligence Policy Committee, IEEE-USA).  
February 10, 2017.

## PRESENTATIONS

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22. [“Artificial Intelligence Law 2020”](#) (CLE credit event)  
Panelist.  
*Practising Law Institute.*  
New York, NY, January 27, 2020.
21. [Testimony at “Oversight - Follow up on Local Law 49 of 2018 in Relation to Automated Decision Systems Used by Agencies”](#)  
*New York City Council, Committee on Technology*  
New York, NY, January 22, 2020.
20. “Pre-Trial Detention/Risk Assessment”  
Session Leader.  
*Automating Bias: How Computers Are Making Decisions About Your Life.*  
NAACP LDF and Co-Partners.  
New York, NY, 2019.
19. [“Seven Questions to Ask When Faced with an Algorithm”](#) (CLE credit event)  
Presenter.  
*Primer on AI.*  
Rights over Tech with the NYU Center on Civil Justice.  
New York, NY, November 22, 2019.
18. “Law & Tech”  
Panelist.  
All Tech is Human NYC.  
New York, NY, November 9, 2019.
17. “Lessons from the Hill”  
Panelist.  
NYU Journal of Legislation and Public Policy.  
New York, NY, October 16, 2019.
16. “Impact of Innovation” (CLE Credit Event)  
Moderator.  
NYU Law & Tech.  
New York, NY, October 15, 2019.
15. “Automation, Robotics, Artificial Intelligence and the Future of Work”  
Panelist.  
*60<sup>th</sup> Constitutional Convention.*  
Texas AFL-CIO.  
San Antonio, TX, July 27, 2019.

14. "A Golden Age of Legal Innovation: Navigational Advice for Law Students, Young Lawyers, and Other Explorers" (CLE Credit Event)  
Panelist.  
NYU Law & Tech.  
New York, NY, April 8, 2019.
13. "Autonomous Systems and Domestic Security"  
Panelist.  
*Security and the Autonomous Future*.  
Pennsylvania State University Center for Security Research and Education and Pennsylvania State Journal of Law and International Affairs.  
University Park, PA, April 5, 2019.
12. Framing Human-Automation Governance: A New Modus Operandi from Cognitive Engineering  
Panelist.  
(with Matthew Miller, Yosef Razin, Rachel Haga, Dev Minotra, and Raunak Bhattacharyya).  
*WeRobot 2017*.  
Yale Law School.  
New Haven, CT, April 1, 2017.
11. Mathematical Representations of Human Judgment and Decision Making in Military Contexts  
(with Karen Feigh and Rachel Haga).  
*Emerging Techniques Special Meeting*.  
Military Operations Research Society.  
Washington, D.C., December 2016.
10. A General Linear Model of Fast-and-Frugal Judgment and Decision Making  
Poster Presentation.  
*Summer Institute on Bounded Rationality*.  
Max Planck Institute for Human Development.  
Berlin, Germany, July 2016.
9. "The Necessary and Sufficient Conditions for Graduate School Success."  
Invited speaker.  
*2016 FOCUS Program Dinner*.  
Georgia Institute of Technology.  
Atlanta, GA, January 2016.
8. Toward Meaningful Human Control of Autonomous Weapons Systems through Function Allocation  
Presenter.  
(with Rachel A. Haga).  
*IEEE International Symposium on Technology and Society (ISTAS)*.  
Dublin, Ireland, November 2015.
7. Heuristic Decision Making with Incomplete Information: Conditions for Ecological Rationality.  
*IEEE Systems, Man, and Cybernetics International Conference (SMC)*.

(with Karen Feigh).  
San Diego, CA, November 2015.

6. Accuracy and Effort of Decision Making with Incomplete Information.  
*IEEE International Inter-Disciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support (CogSIMA).*  
(with Karen Feigh and Zarrin K. Chua).  
San Antonio, TX, March 2014.
5. “Building Your Morals.”  
Keynote Speaker.  
*Show-Me Scholars Luncheon.*  
University of Missouri, Columbia, MO, 2014.
4. Accuracy and Effort of Dynamic Decision Making with Incomplete Information.  
*Brown Bag Lunch Lecture Series.*  
Georgia Institute of Technology, School of Aerospace Engineering, Atlanta, GA, October 2013.
3. Review and Development of Planetocentric Reference Frames to Model the Flyby Anomaly.  
*McNair Scholars Conference.*  
(with Sergei Kopeikin).  
University of Missouri, Columbia, MO, April 2012.
2. “Mastering the Fellowships Game.”  
*MU Excels 2012.*  
University of Missouri, Columbia, MO, 2012.
1. At Wheel Stop: A Review of the U.S. Human Space Exploration Policy.  
*Review of the 2011 Washington Internships for Students of Engineering (WISE) Program.*  
Washington, D.C., August 2011.

## **TEACHING**

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*Teaching Assistant, Aerospace Engineering 3721, “Flight Dynamics,” Georgia Institute of Technology, Spring 2014*

## **PROFESSIONAL ACTIVITIES**

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### **Reviewer**

- *Behavior Research Methods*
- *IEEE Transactions on Automation Science and Engineering*
- *IEEE Access*

### **Member**

- American Bar Association (2015-present)

- Institute for Electrical and Electronics Engineers (2014-present)

#### **Committee Member**

- ABA AI Legal Ethics Working Group (2019-present)
- Standard P7000 Model Process for Addressing Ethical Concerns During System Design, IEEE Standards Association (2016-2017)

#### **Open Source Elections Technology (OSET) Institute**

Contributing Election Technology and Policy Analyst

#### **FEATURED**

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6. "[Leading Edge](#)," in *NYU Law School's Annual Magazine* (2019).
5. "[2017-2018 Government Fellowships: A Formative Experience](#)," in *IEEE-USA InSight Magazine* (October 2018).
4. "[US House White Paper Calls for AI Development, Restraint in Federal Regulations](#)," in *LegalTech News* (October 2018).
3. "[Encouraging Transparency and Accountability, Advocates Push Governments to Confront Machine Bias](#)," in *LegalTech News* (August 2018).
2. "[Tech in DC: Intersecting Science and Policy](#)," in *Georgia Tech News Center* (August 2017).
1. "[When Cognitive Engineering Meets Public Policy](#)," in *Georgia Tech News Center* (July 2017).