Jack Reid

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• *Résumé current as of April 8, 2022*

Skills

Earth Observation Data Analysis	Forest health, land use/cover, urban nightlights, machine learning
Modeling	Complex systems, discrete event, agent-based, system dynamics
Economy & Policy Analysis	Microeconomics, ecosystem services, policy frameworks
Decision Support Systems	Remote observation, GIS, econometric, public health
Aerospace Systems Engineering	Satellite design, systems architecture, requirements writing
Coding	Python, Javascript, MATLAB, Bash, Google Earth Engine

Education

Massachusetts Institute of Technology 2018-Present

PhD in Media Arts & Sciences

Expected Graduation: August 2022 GPA: 5.0/5.0

Massachusetts Institute of Technology 2015-2018

Master of Science in Technology & Policy; Master of Science in Aerospace Engineering

Graduation: May 2018 GPA: 4.9/5.0

Texas A&M University 2011-2015

Bachelor of Science in Mechanical Engineering; Bachelor of Art in Philosophy

Honors Minor in Mathematics

Graduation: May 2015 GPA: 3.98/4.0

Research & Employment

MIT Space Enabled, *Graduate Researcher* ..... 08/2018 - Present

Developing integrated, multidomain, sociotechnical system models, standards, and libraries to improve the ability of various groups to use remote observation data for public health and sustainable development purposes and to design new remote observation platforms to better suit their needs.

RAND Corporation, *Summer Associate* ..... 05/2018 - 08/2018

Built a generalized early warning modeling framework as part of a project to identify potential countermeasures to attacks on the US homeland by hypersonic cruise missiles

MIT Systems Engineering Research Initiative, *Graduate Researcher* .. 08/2015 - 05/2018

Research on various systems engineering topics, primarily for the defense sector, on model integration, complexity, emergent behavior, and the non-technical and policy issues that surround them.
Resulted in masters thesis on potential changes and improvements to the US defense acquisition process.

RAND Corporation, *Summer Associate* ..... 05/2017 - 08/2017

Conducted technology forecasting, agent-based modeling, and analysis of alternatives to support military acquisition decisions, particularly with regard to aerial intelligence, reconnaissance, and surveillance.

Sandia National Laboratories, *Environmental Testing Researcher* ..... 06/2015 - 08/2015

Worked on shock and vibration simulation, development of improved shock and vibration testing methods and analysis algorithms, as well as control system malfunction diagnosis and repair.

TAMU PEDL, *Undergraduate Researcher* ..... 01/2013 - 05/2015

Conducted research in the Plasma Engineering Diagnostics Laboratory to make non-thermal, atmospheric pressure plasmas more practical for the deposition of thin films and medical applications such as mitigating the tactile painfulness of using argon as a working fluid on human skin, designing and machining an insulated handle for a portable dielectric barrier discharge jet, and machining and testing a nonthermal plasma grating that sterilizes bioaerosals.

Scientific Publications

S. Jung, E. Joiner, J. Reid, and D. Wood, "Gaps in Mangrove Forest Data and Valuation Methods Limit Understanding of Socioeconomic Benefits." *Review of Environmental Economics and Policy*, [Publication Pending].

J. Reid, et al., "International Collaboration Aimed at Identifying Relevant Social, Policy, and Environmental Factors in the Progression of SARS-CoV2/COVID-19 in Six Metropolitan Areas." 2021 AGU Fall Meeting, New Orleans, LA..

J. Reid, et al., "Vida Decision Support System: An International, Collaborative Project for COVID-19 Management with Integrated Modeling." 2021 International Astronautical Congress, Dubai, UAE. [Available online: https://dspace.mit.edu/handle/1721.1/138106].

J. Reid et al., "The Vida Decision Support System: An Integrated Modeling Framework to Inform and Monitor Regional COVID-19 Responses." 2020 AGU Fall Meeting, Virtual Poster [Available online: https://agu2020fallmeeting-agu.ipostersessions.com/Default.aspx?s=E4-CD-8B-57-42-DA-45-4C-39-6A-C3-BF-A3-5C-B2-D1#].

J. Reid, D. Wood, "Decision Support Model and Visualization for Assessing Environmental Phenomena, Ecosystem Services, Policy Consequences, and Satellite Design Using Earth Observation Data." 2020 AIAA ASCEND, Virtual [Available online: https://dspace.mit.edu/handle/1721.1/128378].

J. Reid, D. Wood, "Interactive Model for Assessing Mangrove Health, Ecosystem Services, Policy Consequences, and Satellite Design in Rio de Janeiro Using Earth Observation Data." *2020 International Astronautical Congress*, Virtual [Available online: https://dspace.mit.edu/handle/1721.1/129598].

J. Reid, D. Rhodes, "Digital System Models: An investigation of the non-technical challenges and research needs." 2016 Conference on Systems Engineering Research, Huntsville, AL.

Extracurricular & Service Activities

MIT Graduate Student Council, ***Various Leadership Roles*** ..... 06/2018 - Present

As External Affairs Board Chair, lead MIT graduate students' advocacy and public outreach activities, including legislative advocacy at the local, state, and federal levels.

As University Liaison, represented MIT to other universities, including at conferences and legislative action days organized by the National Association of Professional and Graduate Students.

MIT Science Policy Review, ***Associate Editor*** ..... 06/2019 - 08/2020

Provided feedback to authors and managed the peer review process for a researcher-run publication founded in 2019 whose primary purpose is to publish accessible and authoritative science policy reviews authored by members of the broader MIT community for dissemination to the wider public.

Science Policy Initiative, ***Various Leadership Roles*** ..... 06/2015 - 05/2020

MIT graduate organization dedicated to educating students on the role science plays in policy-making, the effects of policy on the scientific community, and how to engage in policy advocacy.

As President, lead the organization through several changes, including commissioning a history documentation effort and expanding the science policy bootcamp.

As Congressional Visit Days Co-Chair, organized a multi-day trip to Washington DC where MIT students met with numerous Congressional offices as part of the broader STEM on the Hill event hosted by the Science-Engineering-Technology Working Group.

As Bootcamp Chair, organized two science policy bootcamps (one in person and one virtual) designed to introduce participants to the 'nuts and bolts' of science policy making.

MIT Open Access Task Force, ***Graduate Student Representative*** ..... 09/2017 - Present

Served as the representative of graduate student interests on a task force dedicated to reforming and advancing MIT's open access policies