

Nathaniel Fruchter

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Education

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MA – EXPECTED, JUNE 2018

S.M Candidate in Technology and Policy. Research assistant in the Internet Policy Research Initiative studying human factors in cybersecurity.

CARNEGIE MELLON UNIVERSITY, PITTSBURGH, PA – MAY 2016 – GPA: 3.83 / 4.00

B.S. in Decision Science and Science, Technology, and Public Policy. Minor in Human-Computer Interaction. Member of the Science and Humanities Scholars program. Phi Beta Kappa society.

Research

MIT INTERNET POLICY RESEARCH INITIATIVE, GRADUATE RESEARCH ASSISTANT – AUG 2016-PRESENT

- Studied consumer perceptions of Internet of Things privacy and security using natural language processing and qualitative methods
- Created web measurement tools to characterize the obfuscated web hosting infrastructure of malicious advertising hosts
- Co-supervised an undergraduate's Spring 2017 research assistant project through weekly check-ins, technical mentoring, and monitoring of deliverables to supervisor

PITTSBURGH ENERGY FORUMS, SCIENCE COMMUNICATION WORKSHOPS – JAN 2016-MAY 2016

- Part of the *Energy: Science, Society, and Communication* course taught in collaboration with the National Academies of Science and their Science Ambassadors program.
- Collaborated with leading energy researchers to emphasize the necessity and tradeoffs surrounding the modernization of today's electrical distribution systems.

CARNEGIE MELLON ENGINEERING AND PUBLIC POLICY, CITIZEN SCIENCE PROJECT – AUG 2015-DEC 2015

- Investigated community response to personal environmental monitors (PEMs).
- Led structured interviews with area stakeholders, including nonprofits and regulators.
- Contributed to a comprehensive policy report regarding the usage of PEMs for air quality monitoring utilized by a CMU-affiliated air quality monitor manufacturer.

CARNEGIE MELLON HUMAN-COMPUTER INTERACTION, RESEARCH ASSISTANT – JAN 2014-MAY 2015

- Created experimental scenarios, methods, and measures for five new and existing studies.
- Contributed to research on mediated decision making, user mental models, network security, and algorithmic management by participating in writing and editing of papers.
- Collaborated with lab members and faculty on quantitative and qualitative data collection by running lab studies, performing statistical analyses, coding data, and developing software.

Work Experience

NAT'L TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION, POLICY INTERN – JUN-AUG 2017

- Assisted staff in the Office of Policy Analysis and Development (OPAD) with research and analysis on internet policy issues.
- Wrote and gave research briefings/memos on a variety of subjects (e.g. botnets, IoT, cybersecurity, broadband infrastructure, IETF standards).

- Summarized and created memos on hearings/events related to broadband deployment, broadband infrastructure, and autonomous vehicles.

CARNEGIE MELLON INST. FOR POLITICS & STRATEGY, TEACHING ASSISTANT – AUG 2015-DEC 2015

- Assist professor and co-TA within grading and course management tasks for an introductory political science and government course.
- Serve as an academic resource for students by answering questions and running reviews.

CARNEGIE MELLON UNIVERSITY HOUSING & DINING, DESK SERVICES ATTENDANT – FALL 2012-SPRING 2016

- Act as a first point of contact for residents and visitors needing assistance in campus dorms.
- Work with Housing and Dining to ensure dorm security and report issues needing attention.

GAMEFUL.ORG, DEVELOPER & COMMUNITY INTERN – NOV 2010-NOV 2011

- Helped improve the gameful.org landing and platform using WordPress, PHP, and HTML.

Publications

Kang, R., Dabbish, L., **Fruchter, N.** and Kiesler, S. "My data just goes everywhere." User mental models of the Internet and implications for privacy and security. *In Proc. SOUPS 2015.*

Fruchter, N., Miao, H., Stevenson, S., and Balebako, R. Variations in Tracking in Relation to Geographic Location. Presented at *IEEE Workshop on Web 2.0 Security and Privacy, 2015.*

Lee, M.K., **Fruchter, N.** and Dabbish, L. Making decisions from a distance: The impact of technological mediation on riskiness and dehumanization. *In Proc. ACM CSCW 2015.*

Certifications and Awards

IAPP Certified Information Privacy Technologist (CIPT) certificate

Carnegie Mellon Dietrich College Dean's List Honors – Fall 2012-Spring 2016

Skills

Computing Excellent knowledge of all major operating systems (Windows, Mac OS, Linux), along with Adobe Photoshop and Microsoft Office. Proficient with JMP statistical software.

Programming Proficient in Python, HTML, JavaScript, and CSS. Working knowledge of PHP, AngularJS, and jQuery. Experienced with hybrid mobile development (PhoneGap) and web scraping/web automation.

Photography Concert, event, and landscape photography.

Design User-centered design methods: rapid prototyping and iteration, user testing, experimental design, low and high-fidelity prototyping; basic graphic and print design;.

Coursework

DECISION AND SOCIAL SCIENCES Empirical Research Methods, Uncertain Social Systems, Policy Analysis, Cognitive Psychology, Judicial Politics, Behavioral Decision Making

POLICY AND ANALYSIS Stats for Lab Sciences, Ethics and Policy Issues in Computing, Privacy Policy Law and Technology, Decision Analysis and Decision Support

TECHNOLOGY Human Centered Software, Interaction Design, Applied Fabrication for HCI