Erica Luzzi

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EDUCATION & PROFESSIONAL DEVELOPMENT

B.S. Cognitive and Brain Sciences
Tufts University, 2019

- Minors: Computer Science, English
- Cum Laude

Science Policy Bootcamp
MIT Science Policy Initiative, January 2020

- 5 -day course that serves to both expose participants to the fundamental structure and dynamics of science policy and inform them of routes into a policy experience or career
- Provides an overview of the origins and structures of federal science and technology policy in the U.S.
- Probes perennial and current issues that arise in the use of science in policy and in the governance of science
- Topics will include the use of science in environmental policy, questions regarding conflicts of interest, and current debates on international competition in science and technology
- The course will be built around class discussions of a variety of readings, including of Congressional hearings, reports from think tanks, court decisions and a play

SKILLS

- C
- C++
- R
- Python
- SPSS
- JavaScript
- HTML
- PHP
- Unix
- Assembly Language

PROJECTS

Capstone Research Project: Eye contact and joint attention induce inter-subject EEG synchrony and prosociality
Tufts University, May 2019

- Conducted literature review on EEG synchrony and prosociality
- Defined hypotheses
- Designed study protocol and stimuli
- Wrote study script
- Wrote consent and debriefing forms
- Created live and post-study coding sheets
- Created Qualtrics survey
- Wrote IRB proposal and modification form
- Applied for undergraduate research grants and managed grant money
- Recruited subjects through flyers and the Tufts University Sona Systems pool
- Worked with BrainCo inc to receive a loan of two EEG headbands and router
- Scheduled participants
- Created email templates for study reminders and information
- Ran pilot and actual trials
- Organized study data and participant information
- Processed EEG data using python and MatLab
- Ran statistical analyses using Qualtrics and Excel
- Created and presented scientific poster

EXPERIENCE

Research Guide
MIT Media Lab, September 2019 – Present

- Gave tours of the Media Lab and explained current research projects
- Created tour agendas
- Scheduled research demos for visitors
- Inputted and organized data in Salesforce
- Created a Member Engagement Report using Salesforce data regarding a member's collaboration history at the Media Lab
- Managed tour requests
- Ran Salesforce report of research initiatives analyzing the following data
    - Number of research demos presented
    - Number of meetings with member companies
    - Number of active collaboration contracts
    - Number of donations received
- Created spreadsheet with key information on each member company
- Wrote job posting for Data Analyst position open to Northeastern co-op students
- Updated spreadsheet of twitter handles of member companies
- Managed guest list for Member Event (3 day conference)
- Ordered and set up catering

Neuroscience Research Assistant
BrainCo, June 2019 – August 2019

- Conducted background research on ADHD neurofeedback treatment and
- Researched outcome measures and their scoring sheets for ADHD
- Researched quality of life surveys for adults
- Researched ADHD summer camps, schools, magazines, and online communities as potential recruitment sites
- Contact relevant institutions to promote the study
- Worked with developers to improve software for neurofeedback games
- Wrote consent forms
- Created attention training logs
- Created and posted flyers
- Created newsletter banner study announcements
- Created secure participant information database
- Created script for tips for relaxation and focus during neurofeedback
- Created study survey interest form
- Created phone screening script
- Wrote instruction manual for participants to complete the study at home
- Made participant progress tracking sheet
- Called participants and ran phone screens
- Ran demo and presentation for Yale summer high school students at Yale Explo Summer Programs
- Created a demo of relaxation sounds for neurofeedback
- Recorded voiceover for attention training games
- Sent out and tracked packages containing study equipment
- Answered participant questions via study help line
- Created email templates
- Tracked participant progress
- Managed participants' STAR reading assessment and IVA-2 assessment results

Research Assistant

Boston College Cooperation Lab, June 2018 – August 2018

- Reviewed research on honesty, trust and forgiveness in 5-10 year olds
- Reviewed and updated study protocol for study on honesty and forgiveness
- Wrote and updated study script
- Designed and produced stimuli
- Acted as first experimenter for study on honesty and forgiveness
- Acted as second experimenter for study on prisoner's dilemma
- Affectively coded video data of a completed study
- Organized and scanned consent forms
- Organized and inputted data using Excel
- Recruited participants in public spaces and using Filemaker-Pro
- Educated the public about psychological research studies
- Worked with parents and children ages 4-10 participating in studies
- Created live and offline coding sheets
- Analyzed pilot data in order to modify study design
- Presented pilot data at lab meeting

Research Assistant

BrainCo, June 2017 – June 2018

- Conducted literature reviews on EEG and its applications for education, meditation neurofeedback, attention and relaxation training, and ADHD treatment

- Wrote IRB proposals
- Wrote FDA approval applications
- Wrote award nominations
- Wrote grant proposals
- Designed and ran data collection studies
- Analyzed EEG data
- Worked at company booth at the 2018 Consumer Electronics Show
- Ran demos
- Informed the public about EEG
- Networked with potential collaborators
- Reached out to local schools to collaborate on pilot studies
- Contacted technology journalists

Research Assistant
Tufts University Psychology Department, December 2017 – January 2018

- Conducted literature review on nonmusical rhythmic-processing and its effect on reading and literacy outcomes
- Proofread papers

Research Assistant
Tufts Human-Robot Interaction Lab, May 2016 – May 2017

- Conducted literature review on object affordances
- Wrote IRB proposal
- Designed study on context-aware object affordance perception
- Recruited subjects through Amazon Mechanical Turk
- Wrote MTurk study pages using HTML, JavaScript, and PHP

PRESENTATIONS

Luzzi, E. (May 2019) *The Humanity Behind Robotics.* Presented to the Mountain Lakes High School and Briarcliff Middle School Robotics Clubs.

Luzzi, E. (May 2019) *The Relationship Between Neural Synchrony and Prosocial Feelings Towards Partner.* Presented at the Tufts University Cognitive and Brain Sciences final poster session.

Luzzi, E. (March 2019) *Eye Contact and Social Dynamics Using EEG.* Presented to the Tufts University Cognitive and Brain Sciences Senior Seminar.

Liu, S. & Luzzi, E. (August, 2018). *Virtue Task Battery.* Presented at the Boston College Cooperation Lab, Language Learning Lab, and Infant Child Cognition Lab's joint lab meeting.

ACTIVITIES

Backpacking Trip Leader
Tufts Wilderness Orientation, January 2017 – May 2019

- Completed Wilderness First Aid and CPR certifications

- Trained and developed technical wilderness and interpersonal skills
- Led 5-day backpacking trips for incoming first year students and met with the group throughout the year

Director of Communications
Tufts Enigma Independent Data Journal, January 2017 – May 2019

- Collected and analyzed data on body perception among Tufts Students
- Analyzed data from Tufts Daily newspaper archives
- Attended data science workshops
- Presented data and wrote articles
- Advertised club events
- Tabled at club fairs

Public Harmony Member
Tufts Public Harmony, September 2018 – May 2019

- Served the Greater Boston area by connecting with community organizations through uplifting musical performances

Student DJ
WMFO Tufts Freeform Radio, January 2016 – May 2019

- Hosted a weekly radio show

HONORS

Dean's List
Tufts University, Spring 2016, Fall 2017, Fall 2018