Fiona Paine fionapaine.com

EDUCATION

Massachusetts Institute of Technology - Cambridge, MA

- B.S. in Mathematical Economics and B.S. in Electrical Engineering, awarded June 2017 George Washington University - Washington, DC
- Non-degree Student: graduate level Mathematical Statistics evening class, Fall 2017

EXPERIENCE

Fall 2017 - present

Federal Reserve Board of Governors, International Finance Division: Research Assistant

- Produce data visualization and basic statistical analysis for policy work using R. Charts are published in memos for division director and governors (publically available after 5 years).
- Current research project: Use filtering techniques from signal processing to decompose nonstationary economic data into trend and cyclical components to predict financial crisis and forecast future data level.

2016 – Spring 2017 **E-commerce Economics:** Research Assistant

- Wrote a python script that scraped data from Amazon.com. Compiled 1.2 million data points
- Analyzed data using Stata. Ran statistical tests and created models of behavior

2015 - Spring 2017

MIT Center for Energy and Environmental Policy Research: Research Assistant

- Read, summarized, and analyzed current research.
- Wrote articles and memos about energy topics

Summer 2015

Analog Devices Inc. (MEMS Automotive Department): Product Engineer Intern

- Analyzed data for quality testing and failure analysis on MEMS (microelectromechanical) accelerometers
- Wrote, edited, and debugged LabView code for test setup and ran testing experiments

2014 - 2015

Miniature Production Plant for Pharmaceuticals: Research Assistant

- Helped design and build processing plant for end-to-end production of active pharmaceuticals
- Engineered control of stirring, valves, and pumping systems with pulse width modulation, and integrated sensors for feedback control

Fall 2014

Terrascope: Undergraduate Teaching Fellow

- Assisted with teaching and advising students in Terrascope class
- Terrascope is a project class focused in 2014 on solutions to global energy challenges

Spring 2014

New England Climate Adaptation Project: Research Assistant

- Analyzed data to evaluate the effectiveness of role-playing simulations for consensus building in climate adaptation by New England coastal towns.
- Results and analyses contributed to a published paper and book

Publications

Subsidies for Green Technology: The Role of Competition and Flexibility: MIT CEEPR Newsletter Autumn 2015 Natural Gas Prices and Coal Displacement Evidence from Electricity Markets: MIT CEEPR Newsletter Autumn 2015 Ten Years of the Renewable Fuel Standard: MIT CEEPR Newsletter Autumn 2015

LEADERSHIP

2015-2016

Voltage: MIT IEEE Subcommittee - Co-Chair

- Electrical Engineering student group focused on fostering a better MIT undergrad EE community
- Run meetings, organize events, meet with department faculty, and create opportunities for EE focused undergrad students

2014 - 2015

MIT Dorm Government - Hall Chair

- Elected by fellow residents
- Run monthly meetings, organize activities, resolve disputes, and act as "go to" person

SKILLS

- Fluent in Python, R, Stata, Matlab, JMP Statistical Software, LabView, and Eagle.
- Experience with data collection, cleaning, analysis, and visualization. Also soldering, PCB design, and Arduino

OTHER INTERESTS... running, sailing, books, and being outside