

# Emily Margarete Colladay

Boston, MA

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## EDUCATION

### Northeastern University

Boston, MA

Candidate for M.S. in Computer Science | GPA: 3.9

Expected Graduation: May 2022

Relevant coursework: Object-Oriented Design, Data Structures & Systems, Discrete Structures, Algorithms, Mobile Application Development, Intensive Foundations in Computer Science in Python

B.A. in International Affairs with Minor in Data Science | GPA: 3.8 | Dean's List

Graduation: May 2020

Relevant coursework: Foundations of Data Science, Database Design, Applied Statistics, Information Visualization

## TECHNICAL KNOWLEDGE

**Programming Languages:** *Proficient:* Python, Java, C, Shell script *Familiar:* SQL, JavaScript, HTML, CSS, R

**Software:** IntelliJ, Git, R Studio, STATA, Tableau, Android Studio, Vim, IDLE

**Operating Systems:** Windows, Mac OS

## PROJECTS

### Shapes Animator – Java & MVC Design

Object-Oriented Design | Spring 2021

- Developed shapes animator in Java using Model-View-Controller pattern design to separate project into objects with individual responsibilities, ensuring SOLID principles and clean, extensible structure
- Implemented play, pause and rewind features using Java Swing to display shapes being animated to user

### UNFPA Global Learning Map – JavaScript/HTML/CSS

Information Visualization | Spring 2020

<https://neu-ds-4200-s20.github.io/s-l-project-un2/visualization.html>

- Initiated collaboration with former internship, UNFPA, to create an interactive global map hosted on GitHub that filters on countries and other categories to display 2019 UNFPA initiatives, using JavaScript, CSS, and HTML
- Used UNFPA's in-house database to populate the visualization from 2019, but can be extended to include newer data without maintenance; presented to quarterly UN meeting for further development

### US & Mexico Crime Data Analysis – Python

Foundations of Data Science | Fall 2019

- Web scraped crime data of Mexico and the U.S. to create charts and other visualizations using Matplotlib, pandas and NumPy, hosted on Jupyter Notebook
- Predicted development of weapons-caused violence over different demographics and regions using scikit-learn

## EXPERIENCE

### United Nations Population Fund (UNFPA)

New York, NY | January – July 2019

Data Analyst Intern

- Conducted regional and country-level data analysis using Excel and Python on joint work with other actors in the UN System, in line with Agenda 2030 for Sustainable Development
- Assisted with initial drafts of key sections of the Annual Report
- Worked on initial draft of online database for UN country offices which aggregates >1000 reported data on results and difficulties in regards to UNFPA's global initiatives

### Institute for Economics and Peace

Sydney, NSW, AUS | January – July 2018

Research Intern

- Compiled and analyzed data on national-level crime and policies using Excel and R
- Contributed to annual Mexico Peace Index by writing, revising, and editing reports, as well as visualizing data using Tableau, R and Excel
- Conducted attitudinal and crime data analysis in German and English for first German Peace Index
- Published two reports on the Institute's website containing conclusions drawn from own research regarding institutional weakness in Mexico and the relation between refugee and crime statistics in Germany