





# HENRY CHAPMAN

Data and Research Analyst | Computer Science Masters Candidate

 [henryfchapman.github.io](https://github.com/henryfchapman)  [henry.chapman@icloud.com](mailto:henry.chapman@icloud.com)  [in/henryfchapman](https://www.linkedin.com/in/henryfchapman)  [henryfchapman](https://twitter.com/henryfchapman)

## EDUCATION

### University of Pennsylvania

Masters in Computer Science (MCIT), 3.91

- Past Graduate Teaching Assistant - Introduction to Computing Systems

January 2020 – Present

Philadelphia, PA (Remote)

### Yale University

Bachelor of Arts in Global Affairs (International Security), 3.67

September 2012 – June 2016

New Haven, CT

## EXPERIENCE

### Infegy - Consumer Intelligence and Text Analytics

May 2022 – Present

Researcher

Kansas City, MO

- Infegy is a software company (30 employees) that provides world class social listening and text analytics capabilities.
- Lead research effort that supports marketing, sales, and client success teams.
- Work as a liaison between software engineers and business-side of company.

### Jackson County Prosecutor's Office

November 2019 – May 2022

Data Analyst, Crime Strategies Unit

Kansas City, MO

- Led technical analysis resulting in the first homicide conviction of a Kansas City Police detective.
- Led data investigation that resulted in a 95% reduction of Kansas City charged narcotics felonies.
- Built interactive network highlighting social connectivity of gun violence. Discovered links across 66% of shootings.
- Uncovered considerable racial disparities in homicide solve rates and gun violence victim income.
- Co-Author and Recipient of \$350,000 US Department of Justice Intelligence-Driven Prosecution Grant.
- Featured Speaker at 2022 International Association of Crime Analysts Conference in Chicago.

### New York County District Attorney's Office

June 2016 – March 2019

Technology Analyst/Consultant, Trial Bureau 70

New York, NY

- Led technical analysis in New York's first state-level domestic terrorism homicide case that ended in plea deal.
- Analyzed 30,000 websites from suspect's internet history to visualize his YouTube and Reddit radicalization.
- Led year-long cyber-stalking investigation involving 100 fake accounts that ended in a conviction.
- Investigated 12 domestic violence and cold-case homicides.
- Testified in 6 homicide and violent felony trials in New York State Supreme Court.

### National Geospatial-Intelligence Agency

May 2014 – July 2014

Program Management Intern, Services Design Office

Springfield, VA

- Received Top Secret Security Clearance (TS/SCI) with Counterintelligence Polygraph.
- Worked in technology acquisition and program management in a classified setting.

## PROJECTS

### State of Missouri v. Eric DeValkenaere | Python, Plotly, GeoPandas, Folium/Leaflet

November 2021

- Conducted multivariate time series analysis of police homicide of Cameron Lamb.
- Produced synchronized 30-minute compilation video based on 15 pieces of disparate evidence (radio traffic, helicopter video, police dash-camera footage, business surveillance video, and gunshot microphone recordings)
- Built time-based, interactive Leaflet visualization with embedded video using helicopter flight records.
- Analysis enabled the prosecution's arguments that DeValkenaere violated Lamb's Constitutional rights.

### Jackson County Drug Enforcement Reform | Python, Pandas, Selenium, ocrMyPDF, GeoPandas, NetworkX

June 2021

- Found that drug cases represented 33% of all office prosecutions, but almost never involved violence.
- Mined PDFs to discover only 5% of drug prosecutions involved firearms.
- Found that black Kansas Citians represented 85% of accused drug dealers, while only making up 39% of the population.
- Analysis resulted in a 95% reduction in filed drug-related felonies (1000 fewer filed drug cases per year)

### Criminal Case Dashboard | Python, Selenium, Pandas, Google Cloud

January 2021

- Built automated dashboard that visualizes 30,000 felonies traveling through the prosecutor's office.
- Incorporates custom Plotly visualizations deployed on Google Firebase.

## TECHNICAL SKILLS/COURSEWORK/MEMBERSHIPS

**Languages/Technologies:** Python, C, Java, Linux, ArcGIS, QGIS

**Relevant Coursework:** Systems Programming, Probability, Discrete Math, Graph Theory, Cryptography, Computer Security

**Memberships:** Homicide and Use-Of-Force Committees, National Eagle Scout Association, Middle America Regional Crime Analyst Network, International Association of Crime Analysts