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| Exploring Toxic Pollution in the US |
| Map showing all sites, likely symbolized in clusters?  On top of carto basemap, sites are split into two layers, Superfund sites and TRI facilities. User can toggle layers on and off.  Data needed:   1. Superfund Sites-GeoJSON 2. TRI facilities-GeoJSON 3. EPA regions-GeoJSON   Introduction and overview of Superfund Sites and TRI facilities  Intro describing Superfund sites and the Toxic release inventory.  EPA regions are responsible for implementing and monitoring EPA regulations. |

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| Exploring Toxic Pollution in the US |
| Choropleth map showing site density by state  Dropdown menu lets user toggle between Superfund sites/square mile and TRI facilities/square mile  Data needed:   1. State polygons with calculated density fields-GeoJSON   Where are these sites concentrated?  Jupyter notebook calculated the density of superfund sites and TRI facilities in each state. I counted the number per state, and normalized by land area. |

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| Exploring Toxic Pollution in the US |
| Map zooms into northeast region  Choropleth map showing pop density by county  Can toggle superfund sites/TRI facilities on and off  Data needed:   1. County census polygons-GeoJSON 2. Superfund Sites-GeoJSON 3. TRI facilities-GeoJSON   Toxic sites are concentrated in the northeast.  Brief narrative about concentration here, how densely populated this area is. |

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| Exploring Toxic Pollution in the US |
| New Jersey: the Garden State?  New Jersey has highest number of Superfund sites, is the most densely populated state in the US.  People with less than a high school education and with limited English are less able to understand the risks these sites pose. Uninsured are less likely to seek medical help. Children under 5 are the most vulnerable population to toxic pollution.  Map zooms further into New Jersey  Dropdown menu lets user toggle census tract data (% below poverty level, % less than high school education, % uninsured, % below 5 years, % limited English), to view patterns of toxic site locations.  Can toggle superfund sites/TRI facilities on and off  Data needed:   1. Census data polygons-GeoJSON 2. Superfund Sites-GeoJSON 3. TRI facilities-GeoJSON |

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| Exploring Toxic Pollution in the US |
| What exactly does the TRI monitor?  Talk about how many chemicals the TRI monitors, mention that environmental and health hazards are dependent on specific chemicals and amounts, as chemicals have differing levels of toxicity-RSEI scores  Choose from the dropdown menu to explore releases and hazards.  Map showing top highest on-site releasing TRI sites  Dropdown menu lets user choose different categories that update facilities on map, graduated circles based on release amount or score   * Top 100 highest total on-site release * Top 100 highest RSEI scores * Top 100 highest RSEI cancer scores * Top 100 highest RSEI non-cancer scores * Top 100 highest RSEI modeled hazard * Top 100 highest RSEI modeled pounds   Info box updates with description of chemical category chosen from dropdown  Data needed:   1. TRI facilities with total on-site release amount, and joined to RSEI score tables-GeoJSON |

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| Exploring Toxic Pollution in the US |
| Polluting the Great Lakes Watershed  In addition to toxicity levels, hazards are determined by the release method  Describe watersheds and how releases from facilities by both water and land threaten the health of the watershed.  Mention some facts about Great Lakes watershed (drinking water supply, etc.)  Map zooms up to Great Lakes region  Show Great Lakes watershed subregions  Show TRI facilities that fall within the watershed that have releases by land and/or water (JS code filters based on release method, and if it falls within the watershed polygon (turf)  Data needed:   1. Great Lakes watershed-GeoJSON 2. TRI facilities-GeoJSON |

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| Exploring Toxic Pollution in the US |
| Superfund Sites on Puyallup Reservation  Puyallup reservation, near Puget Sound, contains 25 Superfund sites and there are many more adjacent.  Currently protesting the construction of big liquefied natural gas (LNG) complex on top of an existing Superfund site adjacent to their reservation. (<https://www.thenewstribune.com/opinion/article223386895.html>)  Map zooms over to Puget Sound in Washington State  Show outline of Puyallup reservation  Show Superfund sites  Data needed:   1. Puyallup reservation outline-GeoJSON 2. Superfund Sites-GeoJSON 3. LNG complex location-individual marker placed at coordinates (47.221877, -122.477975) 4. Puget Sound watershed-GeoJSON??? |

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| Exploring Toxic Pollution in the US |
| Top 10 Parent Companies  TRI facilities are currently being operated by numerous companies. But there are several parent companies who stand out as ultimately owning more facilities than others.  Map zooms out to nation  Dropdown menu lets user choose one of the top 10 parent companies.  Map shows the location of the parent company,  JS code filters to only show the TRI facilities owned by that company, lines drawn from parent company to each facility?  Info box on map updates with company description, and can turf calculate the average distance from headquarters to facilities?  Data needed:   1. Parent companies-GeoJSON generated from geocoded csv 2. TRI facilities-GeoJSON |

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| Exploring Toxic Pollution in the US |
| Superfund Site Cleanup?  I could include something like this to end on a high note!  Some facts about Superfund site remediation.   * TVA Kingston Site (<https://www.epa.gov/superfund/superfund-success-stories-epa-region-4#jacksonville>) * Eureka Mills Superfund Site (<https://www.epa.gov/superfund/superfund-success-stories-epa-region-8#midvale>) * Chemical Commodities, Inc. Site (<https://www.epa.gov/superfund/superfund-success-stories-epa-region-7#carter>) * Reilly Tar & Chemical (Indianapolis Plant) Site (<https://www.epa.gov/superfund/superfund-success-stories-epa-region-5#reilly>)   Map showing Superfund sites that have been deleted off the NPL.  Map zooms to location when success story in narrative is clicked.  Data needed: Superfund sites-GeoJSON (filtered to show only those that have been removed from the list, popup links to site’s webpage |

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| Exploring Toxic Pollution in the US |
| Nationwide map showing clusters of superfund sites, and TRI facilities  When user enters address, use turf to:   * Find closest superfund site-popup links to site’s page on EPA website * Draw buffer around point, and find all TRI facilities within the buffer   Data needed:   1. Superfund Sites-GeoJSON 2. TRI facilties-GeoJSON   How does this affect you?  Enter your address to find sites near you.  Geocode search bar lets user enter an address  Direct user to TRI website to find more specific info about the facilities near them |