

# RESOURCES at [bit.ly/ddj-resources](http://bit.ly/ddj-resources)

Define a hypothesis

Research!

Obtain data

download (xls, csv)

extract (scraping)

request

FOIA

collect (forms, survey)

Clean data

Text editor

Open Refine

Spreadsheet software

Regular Expressions

Analyze data

Spreadsheet software

Programming languages (R, Python)

Validate your data with a second source

Visualize data

Pen and paper

Spreadsheet software

Tools like Tableau, Datawrapper, Highcharts, Infogram, Carto, QGIS

Programming languages (R, Python, d3.js, neo4j)

Design software like Adobe Illustrator, Inkscape

Contextualize data

Talk to a datapoint

Talk to experts

Report the story around or emerging from your data