### **Introductory reading:**

- Adhikari A, DeNero J. 2019. Computational and inferential thinking The foundations of data science: https://www.inferentialthinking.com/
- Burdick et al. 2016. Digital Humanities: <a href="https://ebookcentral.proquest.com/lib/berkeley-ebooks/detail.action?docID=3339545">https://ebookcentral.proquest.com/lib/berkeley-ebooks/detail.action?docID=3339545</a>

## **General Python**

- VanderPlas J. 2017. Python data science handbook. O'Reily Media: https://jakevdp.github.io/PythonDataScienceHandbook/
- Getting started with Pandas: <a href="https://pandas.pydata.org/pandas-docs/stable/getting">https://pandas.pydata.org/pandas-docs/stable/getting</a> started/index.html#getting-started

#### **Data Visualization**

- Wilke CO. 2019. Fundamentals of data visualization. O'Reily Media: <a href="https://serialmentor.com/dataviz/">https://serialmentor.com/dataviz/</a>
- Data visualization with Pandas: <a href="https://pandas.pydata.org/pandas-docs/stable/user-guide/visualization.html">https://pandas.pydata.org/pandas-docs/stable/user-guide/visualization.html</a>
- Official seaborn tutorial: <a href="https://seaborn.pydata.org/tutorial.html">https://seaborn.pydata.org/tutorial.html</a>

# **Network Analysis**

- Gephi: home page <a href="https://gephi.org/">https://gephi.org/</a>
- Various Sources. no date. Social Network Analysis Theory and Applications: https://www.archiv.politaktiv.org/documents/10157/29141/SocNet TheoryApp.pdf
- Denny M. 2014. Social Network Analysis: <a href="http://www.mjdenny.com/workshops/SN">http://www.mjdenny.com/workshops/SN</a> Theory I.pdf
- Getting started with igraph: <a href="https://igraph.org/python/">https://igraph.org/python/</a>

## **Geospatial analysis**

- Lawhead J. 2019. Learning Geospatial Analysis with Python:
  <a href="http://dl.booktolearn.com/ebooks2/computer/python/9781789959277">http://dl.booktolearn.com/ebooks2/computer/python/9781789959277</a> Learning Geospatial Analysis with Python 376c.pdf
- Voting Rights Data Institute. 2018. Map Guide: <a href="https://www.katiejolly.io/pdf/VRDI%20Map%20Guide.pdf">https://www.katiejolly.io/pdf/VRDI%20Map%20Guide.pdf</a>
- de Smith J, et al. 2018. Geospatial Analysis: https://www.spatialanalysisonline.com/extractv6.pdf
- Getting started with GeoPandas: http://geopandas.org/

### **Computational Text Analysis**

- UC Berkeley text mining & computational text analysis guide: https://guides.lib.berkeley.edu/text-mining
- Natural language processing with Python: https://www.nltk.org/book/
- spaCy 101: https://spacy.io/usage/spacy-101

# **Machine Learning**

- Machine learning in Python with scikit-learn: <a href="https://scikit-learn.org/stable/">https://scikit-learn.org/stable/</a>
- Chollet F. 2018. Deep Learning with Python: http://faculty.neu.edu.cn/yury/AAI/Textbook/Deep%20Learning%20with%20Python.pdf

#### Writing

- Ten simple rules for structuring papers: <a href="https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1005619">https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1005619</a>
- Kitzes et al. 2017. The practice of reproducible research: <a href="https://bids.berkeley.edu/publications/practice-reproducible-research">https://bids.berkeley.edu/publications/practice-reproducible-research</a>