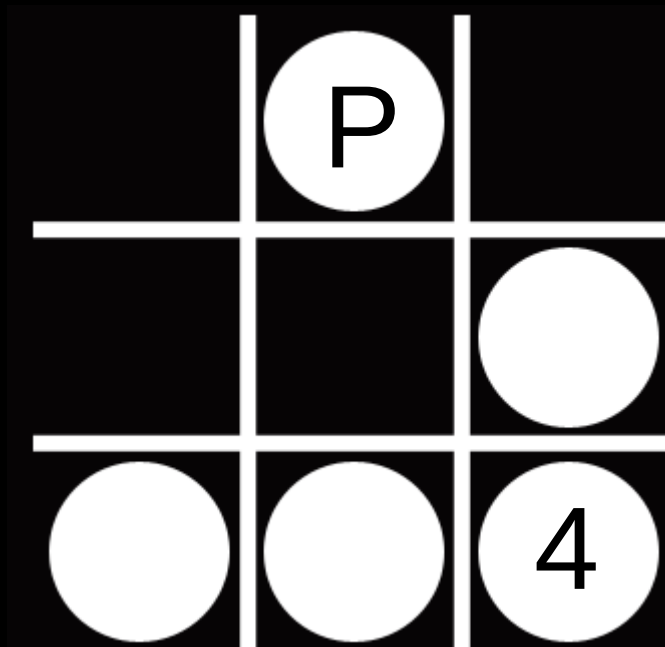# Geography for Hackers

Prepared by Joe Blankenship
www.thejoeblankenship.com
www.cgrii.org

Agenda

What is PyQGIS?

Concepts

Goals

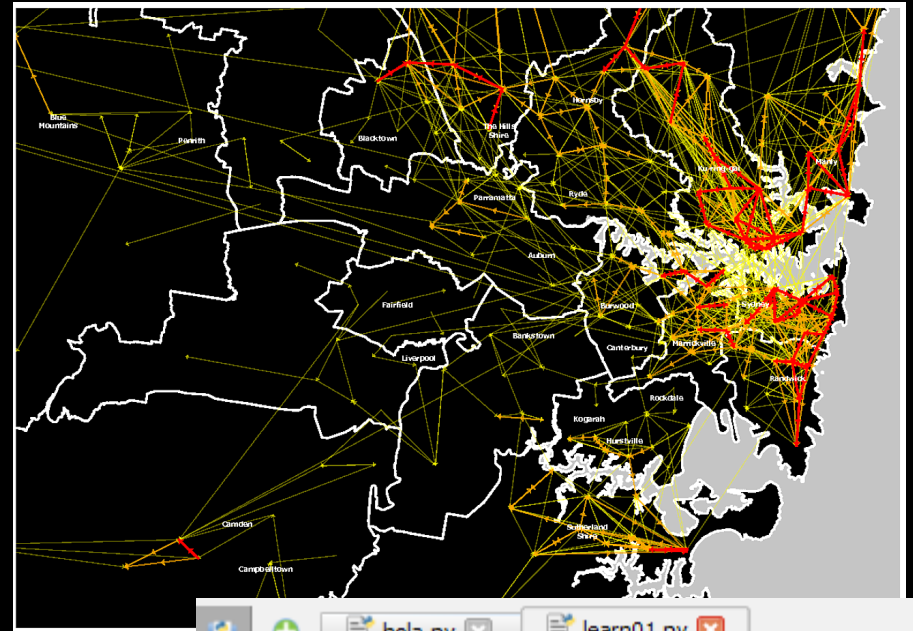Other Courses

Resources

https://github.com/joeblankenship1

What is PyQGIS?

- Python 2.X Library for QGIS

- Open Source!

- Scripts and Plugins

- Automate tasks

- Data and UX Manipulation

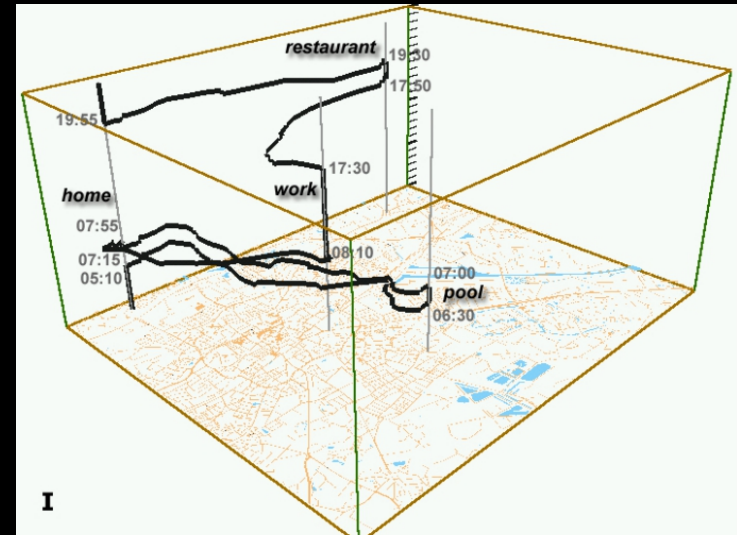- Integrate powerful Python libraries into your analysis
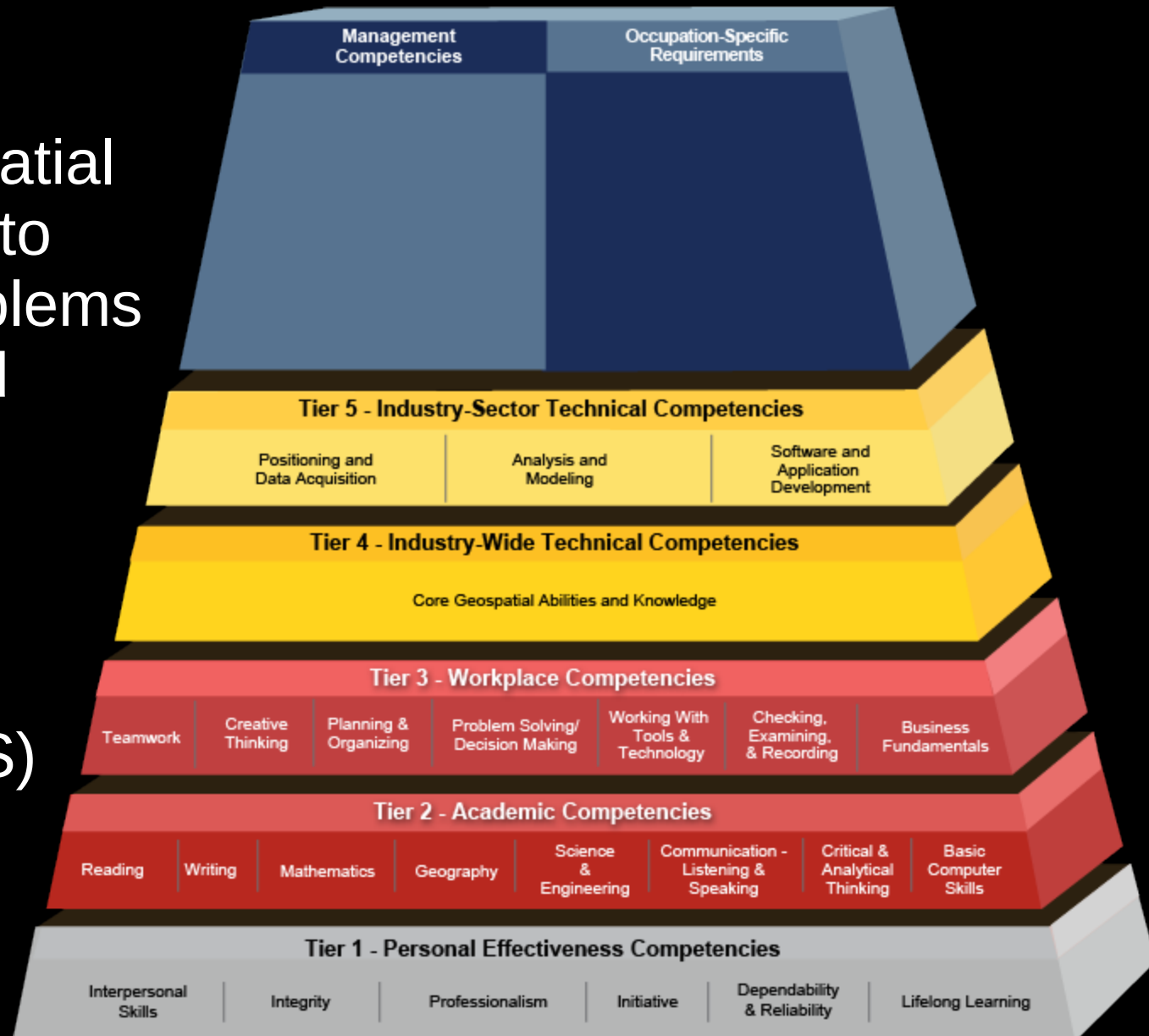
Concepts

- Geography
  - Space
  - Place
  - Scale
  - Time

- Why do you need Geography?
  - Spatial relationships
  - Spatial practices
  - Scalability of space and place
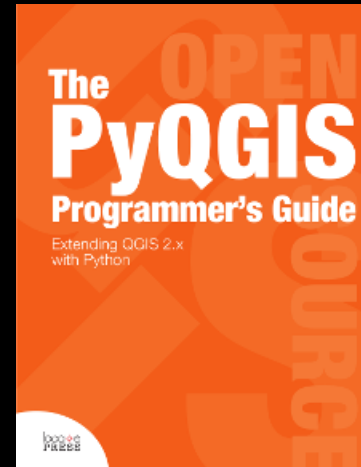 - Mutual production of space/time

Concepts

- **GIScience**
  - Use of geospatial technologies to examine problems in human and physical geographies
  - Geographic Information Systems (GIS)

Goals

- Basics
  - Download and Setup
    - QGIS 2.X
    - Python 2.X
    - QT
    - PyQT
    - PyQGIS
    - Sample Data
  - Start up and GUI
    - QGIS Console
    - IDE

http://locatepress.com/ppg

http://www.qt.io/developers/
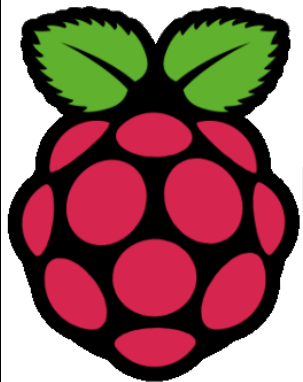
http://locatepress.com/ppg/data_code

Goals

- Python Basics
  - Very Quickly... Just the Basics
- QGIS API
  - Documentation, QGIS Classes and Methods, QT Signal and Slots
- Using Console
  - Settings, Functionality, Data Providers
- Applications
  - Writing, Running, Script Runner, Documentation
  - Plugins, Wrappers, Workflow

Other Courses

- Introduction to Cartography
- Spatial Analysis with QGIS
- WebGIS with OpenGeo Suite
- Remote Sensing for Hackers

Resources

- QGIS
  - http://www.qgis.org/en/docs/index.html
- Boundless
  - http://boundlessgeo.com/
- Python
  - https://www.python.org/
- R
  - https://www.r-project.org/
- Books
  - Thematic cartography and geovisualization (3rd ed) by Slocum, McMaster, Kessler,& Howard
  - Elements of cartography (6th ed) by Arthur H. Robinson
  - The PyQGIS Programmer's Guide: Extending QGIS with Python by Gary Sherman
- FOSS4G GeoAcademy
  - http://spatialquerylab.com/foss4g-academy-curriculum/
- ColorBrewer
  - http://colorbrewer2.org/flash/index.php
- TypeBrewer
  - http://typebrewer.org/

Thanks!

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