Introduction to Python Programming with Anaconda

Dr. Henrich Matzinger and Dr. Greg Mayer Machine Learning and Al Crash Course December 2019

School of Mathematics Georgia Institute of Technology, Atlanta, GA

Overview

Objective

Learn enough python to be able to experiment with basic text classification and fast.ai

Activities

- 1. Python environment set-up
 - install Anaconda to get your system setup
- 2. Jupyter Notebook basics
 - navigate Jupyter, data types, variables, functions
- 3. Program games: guess a number, guess a letter
 - hands-on activities for Python and Jupyter

Anaconda

- is a distribution of Python
- comes with:
 - many libraries used for data science
 - Jupyter notebook
- is an all-in-one install: easier to get started in machine learning

Experienced Python users: feel free to use any environment you prefer for the crash course

Activity 1: Download Anaconda

If you haven't already,

- 1. use any web browser to navigate to www.anaconda.com
- 2. click **Download** (top right)
- 3. may need to change to windows/mac/linux installer
- 4. click graphical installer (easier)
- 5. download and open executable file
- 6. follow instructions in the set-up wizard
- 7. open the **Anaconda Navigator**
- 8. launch the Jupyter notebook

Jupyter Notebook

- Over the next few days, we will use Jupyter Notebook for our crash course
- Jupyter Notebook runs inside of a web browser
- Google Chrome, Firefox, or Edge recommended
- Internet connection not needed to use a Jupyter notebook

Activities 2, 3, 4

Activity 2: Basics of Jupyter Notebooks and Python

We can do this together, but feel free to work ahead

- Download CrashCourse2019.ipynb from pwp.gatech.edu/machinelearningcrashcourse
- 2. Open the notebook and follow the prompts to review basic Python programming

Activity 3: Guess a Number Activity 4: Guess a Word