Data Science on AWS

DAT_SF_10

Agenda

- Create AWS Account
- Set Up SSH Key
- Launch EC2 Instance
- Connect to AWS using SSH
- Set Up Anaconda
- Transfer files to and from AWS

Set Up AWS Account

- Create Free Account - aws.amazon.com
- Follow registration process
    - Create User ID and Password
    - Add contact info
    - Add credit card info (we'll be using free service so you won't be charged)
    - Add phone number and verify identity via call
    - Select Basic(Free) support plan
- Launch Management Console

Create SSH Key

- Select EC2 (top left icon) from AWS Console
- Select Key Pairs link under Resources (left center and top of screen)
- Click ‘Create Key Pair’ button
- Assign name to Key Pair (e.g., name_aws)
- Text editor will launch with key pair in screen

Create SSH Key (continued)

- Save file in your home directory (or in the .ssh folder if you have one) with .pem file extension

- Change security on file with the following command:
  ‘chmod 400 [insert your SSH key file name]’

Launch EC2 Instance

- From the EC2 Console, click on ‘Launch Instance’ button
- Select settings for the instance (use free tier eligible options):
    - Operating System (suggest Linux)
    - Instance Type - t2.micro
    - Select defaults for instance details (including 1 instance)
    - Review and Launch
    - Select key pair (SSH key you created)

Connect to EC2 Instance

- Open terminal and use SSH to connect
- ssh -i /[path to key.pem] ec2-user@[public_dns_name]

Set Up Environment

- Download anaconda (inspect download link from Continuum website to get url below)

‘wget http://09c8d0b2229f813c1b93-c95ac804525aac4b6dba79b00b39d1d3.r79.cf1.rackcdn.com/Anaconda-2.1.0-Linux-x86_64.sh'

- Install anaconda

bash Anaconda-2.1.0-Linux-x86_64.sh

Set Up Environment (continued)

- Accept option to update bash profile
- Run bashrc file to include changes in current environment (you won't have to do this the next time you launch the EC2 instance)
  'source .bashrc'
- Launch ipython to test environment

Move Files Between EC2 and Local Computer

- Use secure copy to move files to EC2
- Log into the terminal on your local computer
- Type:
  ‘scp -i [path to key] [path to file] [user]@[public_dns_name]:[optional ec2 path]’
- Moving files from EC2 to your computer is similar:
  ‘scp -i [user]@[public_dns_name]:[ec2 path to file] [path on local]