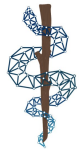
Intro to Cloud Computing with Google Colab

AI in Medicine Curriculum — Workshop #2

Feb 10th 2021



Artificial Intelligence in Medicine Student Society

colab

Introduction to Today



Part 1: Slides (7:00 - 7:15)

1. Intro to Python and the Notebook Environment
2. Intro to Cloud Computing
3. What does Colab have to offer?

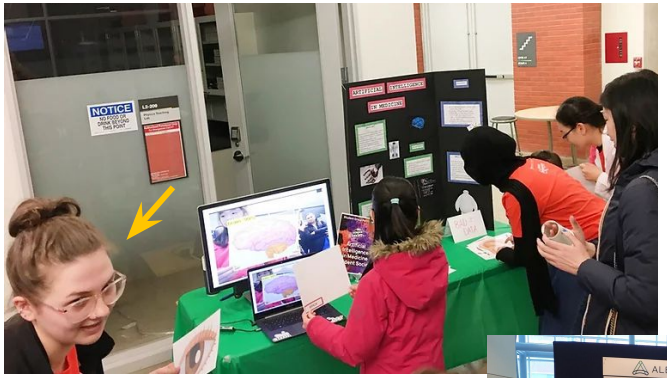


Part 2: Demo (7:15 - 8:00)

1. Colab basics and navigation
2. Connecting your GDrive
3. Implementing simple ML model

About Me

- Sarah Davis
- AIMSS Co-President
- UAlberta Computing Science MSc Student Studying Medical AI
- BSc in BioSci w/ CS Minor
- Python/Notebook Enthusiast



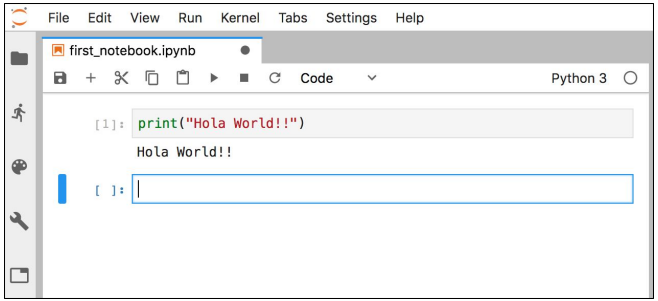


Python and the Notebook Environment



- Python is a high-level programming language released in 1991
  - Often praised for being easy to learn and having thousands of useful libraries
  - One of the best languages for machine learning

- The notebook format (popularized by Project Jupyter) is a way to use Python in “cells” meaning parts of the code are run block-at-a-time



Cloud Computing

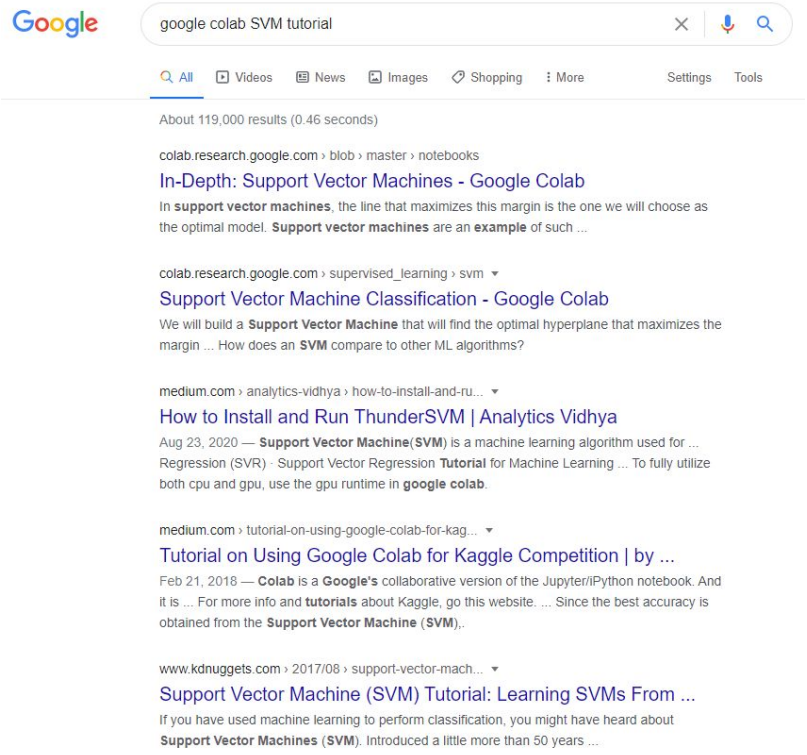
- Personal computers nowadays are good — but often not good enough (especially for “Big Data”)
- Cloud computing is a way to offload the computational burden that might cause memory or CPU errors on your laptop
- Good way to keep data secure if sensitive
- Often clusters are accessed through the command line, but not always



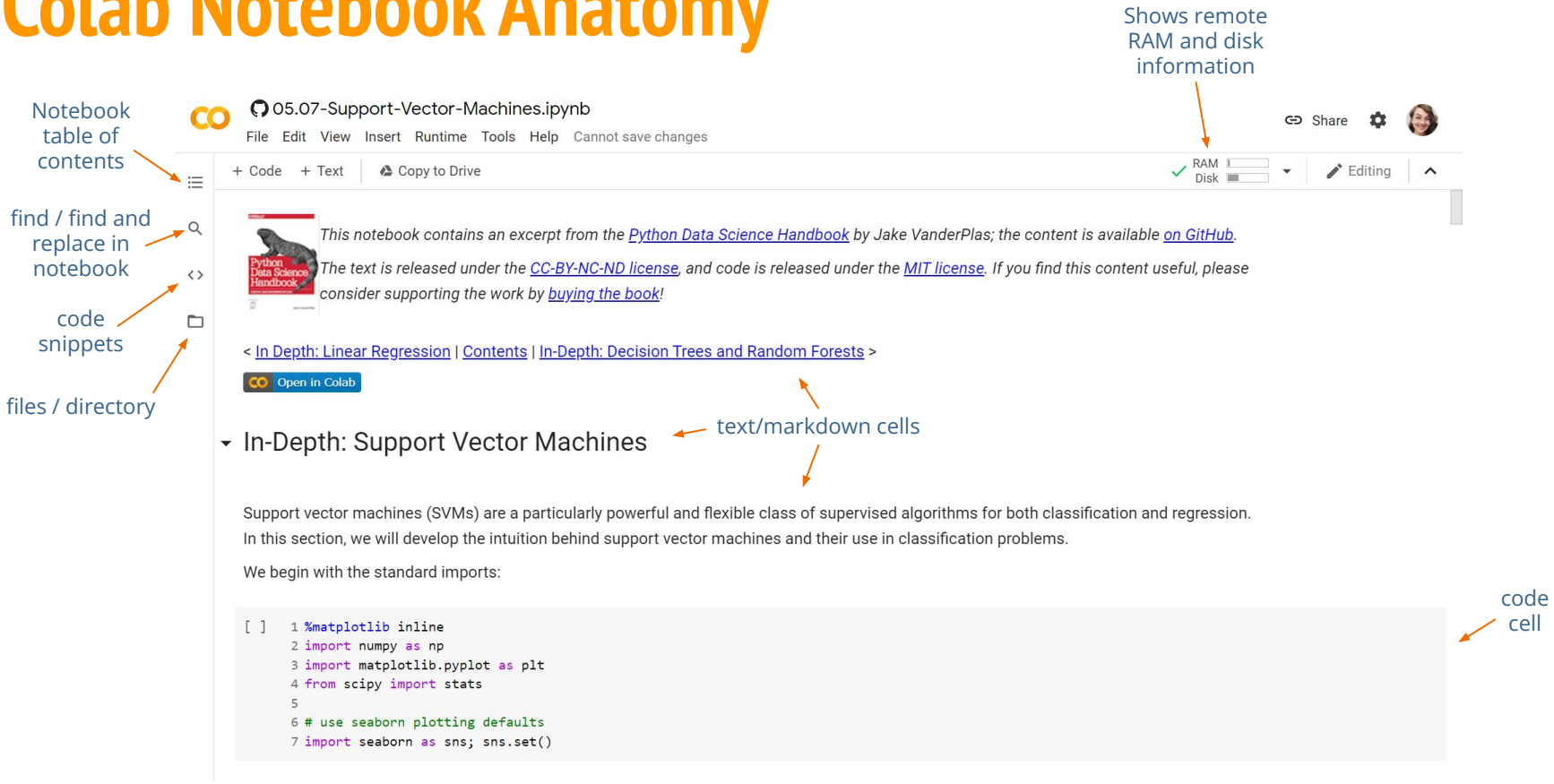
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Google Colab Intro

- Amazing learning tool! Notebook style allows you to see exactly what each line of code does
- Everything lives on your Google Drive, meaning collaborators have easy access
- Many, many tutorials for different ML techniques on Colab
  - Once you know how to use it, learning from these Colab tutorials is super easy!



Colab Notebook Anatomy



Demo Time!

Notebook, slides, and dataset at
linktr.ee/aimssColab

Thank you!

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Check out linktr.ee/aimss for everything club related!



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