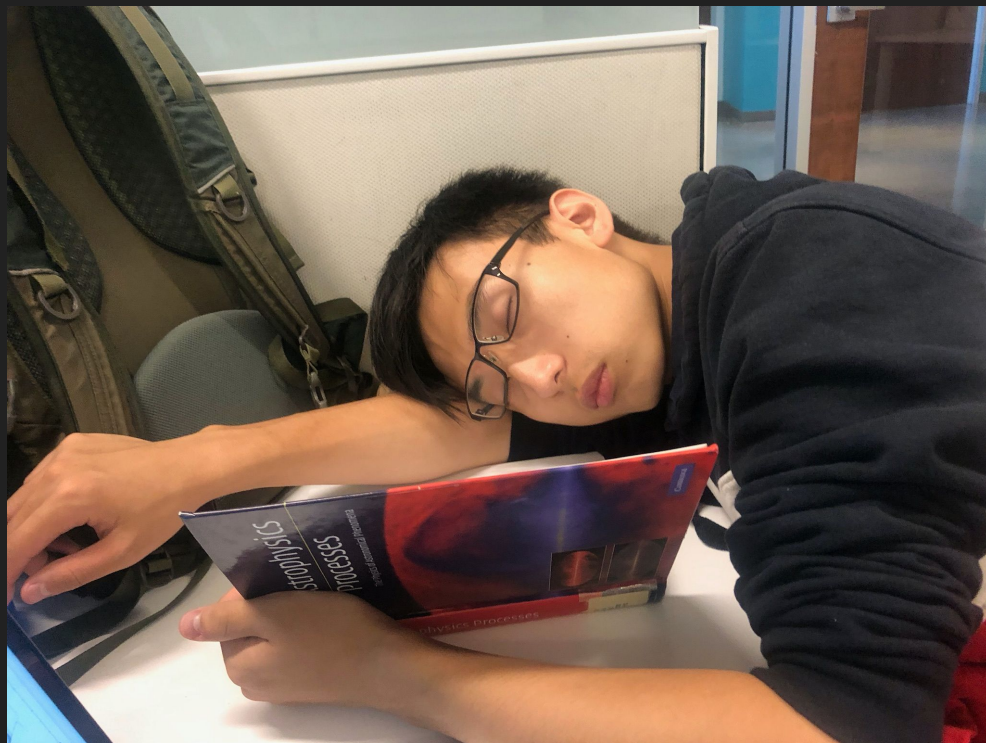# Welcome

To the Python DeCal

Introductions

James Sunseri

- (He/Him/His) Pronouns
- 3rd Year Astrophysics + Physics
- Mega Nerd, love comics and superheroes
- Amateur Guitar, Ukulele, and Piano Player
- Research Interests:
    - Gravitational Waves, Neutron Stars & Black Holes
    - Magnetohydrodynamics Simulations
    - Observational and Theoretical Cosmology
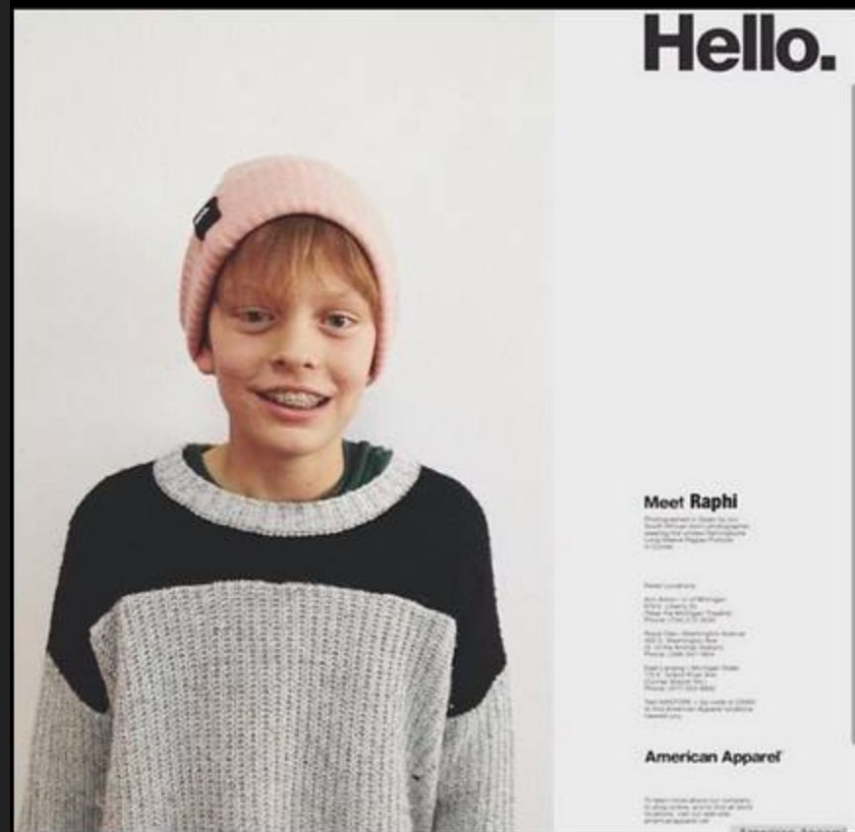- I dye my hair crazy colors sometimes...

Yilun Ma

- 3rd-year Astro + Physics
- Not from the US
    - NOT EVEN IN THE US LOLOL
- (Astro)photographer
- I used to live in Campbell
    - Never sleeps
- Research interests
    - Planet formation
    - Galaxy evolution
        - AGN outflows
    - Surely not cosmology

Raphael Baer-Way

-He/him/his pronouns

-3rd year Astrophysics+Physics

-Co-president of Club Soccer

-Research Interests:

      i.   Supernovae
    ii.   Variable Stars

Emily Ma

- She/her/hers pronouns
- Junior studying Astrophysics and Computer Science
- Loves running, jigsaw puzzles, drawing/painting, hiking
- Discovered a supernova--it's called pjs2019
- Interests:
  - Planets
  - Computer graphics
  - Coding games

Ayla Weitz

- She/her/hers pronouns
- 3rd year Astrophysics major
- Likes: backpacking, dogs, dangly plants, cool rocks, my co-op!
- Research interests:
    - Supernovae
    - Planets

Who are you?

Tell us your:

- Name (Pronouns)
- Year + Major
- Fun Fact

Zoom Rules

- Respect others.
- Don't talk over others
- Please mute yourselves during lectures unless you want to ask questions
- Feel free to ask questions or comment in the chat
- We encourage you to turn on your videos :D (but not required)

Syllabus

Installation Guides

Mac OS

- Open "Terminal." (Applications/Utilities/Terminal)

- First, install brew (a package manager on Mac) using the following command:

```
/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install.sh)"
```

- Then confirm the installation was successful by typing:

```
brew --version
```

- Install wget

```
brew install wget
```

Mac OS

- Next, we need to install Anaconda, which contains python and other scientific packages we might use.

```
wget -O install_anaconda.sh https://repo.continuum.io/archive/Anaconda3-2020.07-MacOSX-x86_64.sh
```

- Install anaconda

```
bash install_anaconda.sh
```

- Restart the Terminal app and reopen
- Check the anaconda installation:

```
conda --version
```

Mac OS

- Run the following commands to create a new conda environment--each conda environment has its own package version, allowing easy switching between different versions of python

```
conda create --name pydecal python=3.6
source activate pydecal
conda install -n pydecal jupyter pandas numpy matplotlib
pip install okpy
```

- From now on, you can switch to the pydecal env with "activate pydecal", and switch back to the default env with "deactivate".
- Use brew to install the latest version of git:

```
brew install git
git --version
```

Windows

- Download python 3.6 installer for Windows (download the one that matches your computer):

  32-bit: https://repo.continuum.io/archive/Anaconda3-2020.07-Windows-x86.exe
  64-bit: https://repo.continuum.io/archive/Anaconda3-2020.07-Windows-x86_64.exe

- Leave all options as default, and make sure both "add to path" and "register" are checked
- Proceed with installation
- Confirm installation by opening "Anaconda Prompt"

Windows

- Run the following commands to create a new conda environment--each conda environment has its own package version, allowing easy switching between different versions of python

```
conda create --name pydecal python=3.6
activate pydecal
conda install -n pydecal jupyter pandas numpy matplotlib
pip install okpy
```

- From now on, you can switch to the pydecal env with "activate pydecal", and switch back to the default env with "deactivate".

Windows

- You might have git installed. Type "`git`" into Anaconda Prompt. If that doesn't throw an error, you can skip these steps.
- If you don't have git installed, type the following into the Anaconda Prompt:

```
conda install -c anaconda git -y
```

- Verify that you have git installed using "`git --version`"

Linux

- Note: these instructions assume that you have `apt-get` (Ubuntu and Debian). For other Linux distributions, substitute the available package manager.
- Install wget:

```
sudo apt-get install wget
```

- Download the Anaconda installation script (64-bit):

```
wget-O install_anaconda.sh https://repo.continuum.io/archive/Anaconda3-2018.12-Linux-x86_64.sh
```

- For 32-bits:

```
wget-O install_anaconda.sh https://repo.continuum.io/archive/Anaconda3-2018.12-Linux-x86.sh
```

```
bash install_anaconda.sh
```

Linux

- Run the following commands to create a new conda environment--each conda environment has its own package version, allowing easy switching between different versions of python

```
conda create --name pydecal python=3.6
source activate pydecal
conda install -n pydecal jupyter pandas numpy matplotlib
pip install okpy
```

- From now on, you can switch to the pydecal env with "activate pydecal", and switch back to the default env with "deactivate".

Linux

- Now install the latest version of git

```
sudo add-apt-repository ppa:git-core/ppa
sudo apt-get update
sudo apt-get install git
git --version
```

- You may also remove the isntall_anaconda.sh script from your computer, as it's quite large.