```
> Dry-Eye
                                     Settings
                                                                        exc3turnin.py
                                                              exc3.py
                          5
                             # Function returning F(x)
6
                             def Fx(x):
  > Images
                          7
                                 return(np.tan(x))
  > PICTURES
                             # Function returning hat F(x)
                          8
   aa29313-16.pdf
                          9
                             def AFx(x):
                                 a = (x-(1./6)*(x**3))
   ds9
                         10
                        11
                                 b = (1 - ((1./2) * (x**2)))
   firsttry.zip
                        12
                                 return(a/b)
   howtouseAARTFAACandTra
                        13
   Notes 19 10 2017
                             # Calc Forward error
                         14
   Notes_13_10_2017
                             def Forward(x):
                         15
   Notes_27_10_1017
                                 return(AFx(x)-Fx(x))
                         16
   Notes_27_10_1017~
                        17
   send.zip
                             # Calc Backward error
                         18
   send2.zip
                             def Backward(x):
                        19
   WSCLEANOPTIONS
                                 return(np.arctan(AFx(x))-x)
                        20
Projects_year1_master
                        21
                         22
                             # Function returning derivative hat F(x)
✔ Projects_year2_master
                        23
                             def dAFx(x):
  > Applied Machine
                         24
                                 return((4 + 0.333333*x**4)/(2 - x**2)**2)
 ▼ ■ Numerical_Algorithms
                         25
    > Chapter1
                         26
                             # Function returning Relative Condition number eval
    def dRelCond(x):
                        27
        exc1.pdf
                         28
                                 return((x * np.square(1/(np.cos(x)))/Fx(x)))
        exc1.py
                        29
       exc2.pdf
                         30
                             # Function returning Relative Condition number eval
       exc2.py
                             def adRelCond(x):
                        31
       exc3.py
                        32
                                 return((x * dAFx(x))/AFx(x))
                        33
       exc3turnin.py
                             # Print function
       homework_assignme
                        34
                             def Printfunction(x):
                         35
      Scientific_Computing
                        36
                                 print("For x = %0.2f" % x)

▼ ■ UVA AML17

                                 print("-----
                        37
    > 📄 .git
                                 print('Forward: %0.2e ' %(Forward(x)))
                        38
     src
                                 print('Backward: %0.2e ' %(Backward(x)))
                        39
    week_1
                        40
                                 print('Relative condition evaluating f(x): %0.2
    > week 2
                        41
                                 print('Relative condition evaluating af(x): %0.
     gitignore.
                        42
                                 print("-----")
     LICENSE
                        43
                                 return 0
     README.md
                        44
                             # Initializing values and print functions
                        45
                             fx = Fx(1)
                        46
                        47
                             afx = AFx(1)
```