



5 Courses

Python Basics

Python Functions, Files, and  
Dictionaries

Data Collection and  
Processing with Python

Python Classes and  
Inheritance

Python Project: pillow,  
tesseract, and opencv



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**Julia Breitenbruch**

has successfully completed the online, non-credit Specialization

## Python 3 Programming

This specialization teaches the fundamentals of programming in Python 3. We will begin at the beginning, with variables, conditionals, and loops, and get to some intermediate material like keyword parameters, list comprehensions, lambda expressions, and class inheritance. You will have lots of opportunities to practice. You will also learn ways to reason about program execution, so that it is no longer mysterious and you are able to debug programs when they don't work. By the end of the specialization, you'll be writing programs that query Internet APIs for data and extract useful information from them. And you'll be able to learn to use new modules and APIs on your own by reading the documentation. That will give you a great launch toward being an independent Python programmer.

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

*Stephen Oney* *Paul Resnick*

Steve Oney  
Assistant Professor  
School of Information

Paul Resnick  
Michael D. Cohen  
Collegiate Professor  
School of Information

*Jaclyn Cohen*

Jaclyn Cohen  
Lecturer  
School of Information

*Christopher Brooks*

Christopher Brooks  
Research Assistant  
Professor  
School of Information

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