

Statement of Achievement

PCAP: Programming Essentials in Python

The graduate of the *PCAP: Programming Essentials in Python* course, administered by the undersigned instructor, and provided by **Cisco Networking Academy®** in collaboration with **OpenEDG Python Institute**:

- knows the universal concepts of computer programming, including variables, data structures, algorithms, control flow, functions, and exceptions;
- can proficiently use the developer tools, the runtime environment, and the syntax and semantics of the Python language;
- can use fundamental programming techniques, best practices, customs, and vocabulary, including the most common standard library functions in Python 3;
- can write Python programs using standard language infrastructure, and knows the means by which to resolve typical implementation problems;
- knows how to work with modules and packages, process text and binary files, and use generators, iterators, and closures;
- understands the fundamentals of object-oriented programming (OOP) and the way they are adopted in Python.

Sandra Dania González Manzano

Student

**Universidad Tecnológica del Norte de
Guanajuato**

Academy Name

Mexico

Location

8 Dec 2022

Date

Gabriel Barrón Rodríguez

Instructor

Instructor Signature