

Statement of Achievement

# PCAP: Programming Essentials in Python

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The graduate of the *PCAP: Programming Essentials in Python* course, administered by the undersigned instructor, and provided by **Cisco Networking Academy**<sup>®</sup> 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.

**Vitalij Poljakov**

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Student

**National Transport University**

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Academy Name

**Ukraine**

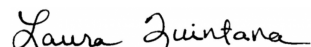
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Location

**17/08/2023**

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Date



Laura Quintana  
VP & General Manager, Cisco Networking Academy



# CLA: Programming Essentials in C

During the Cisco Networking Academy® course, administered by the undersigned instructor, the student has studied the following skills:

This Statement of Achievement is to acknowledge that during the course CLA: Programming Essentials in C, the student has been able to accomplish coding tasks related to the basics of programming, and understands the programming techniques, customs and vocabulary used in the C language.

By completing the course, the student is now ready to attempt the qualification CLA – C Programming Language Certified Associate Certification, from the C++ Institute.

Laura Quintana  
VP & General Manager, Cisco Networking Academy

**Vitalij Poljakov**

Student

**National Transport University**

Academy Name

**Ukraine**

Location

**17/07/2023**

Date

**Andriy Lemeshko**

Instructor



C++ Institute Authorized Academy Program

Program Your Future

Statement of Achievement

## CPA: Programming Essentials in C++

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During the Cisco Networking Academy® self-paced course, the student has studied the following skills:

*Laura Quintana*

Laura Quintana  
VP & General Manager, Cisco Networking Academy

This Statement of Achievement is to acknowledge that during the course **CPA: Programming Essentials in C++**, the student has been able to accomplish coding tasks related to the basics of programming in the C++ language, and understands the fundamental notions and techniques used in object-oriented programming.

By completing the course, the student is now ready to attempt the qualification **CPA – C++ Certified Associate Programmer Certification**, from the C++ Institute.

*Maciej Wichary*

Maciej Wichary  
VP - OpenEDG C++ Institute

**Vitalij Poljakov**

Student

**23/06/2023**

Date