Introduction to C language

ECTS : 0

Volume horaire : 9

Description du contenu de l'enseignement :

This course covers:

- the development in C under Linux
- types
- functions
- pointers
- memory management
- libraries
- text file access

Compétence à acquérir :

This course is designed for Python-proficient students to explore the C programming language. The interactive training focuses on developing essential C-specific skills, emphasizing Linux-based development and command-line compilation. Students will delve into C's type system and its constraints, as well as master pointers and their powerful applications. The curriculum covers crucial aspects of memory management, including allocation and deallocation, and introduces the external tool Valgrind for detecting memory leaks. Additionally, the course encompasses file I/O operations with text files, utilization of mathematical function libraries, and techniques for measuring computation time. This comprehensive approach ensures students gain a solid foundation in C programming, bridging the gap between their Python knowledge and C expertise.

Bibliographie, lectures recommandées :

Brian Kernighan and Dennis Ritchie, The C programming language, Second Edition, Prentice Hall Software Series.

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