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Certificate of Achievement

Augustine Kudiyirippil

has completed the following course:

DEFENSIVE PROGRAMMING AND DEBUGGING
PARTNERSHIP FOR ADVANCED COMPUTING IN EUROPE (PRACE)

This course covered how to write clean and robust code as well as how to use a number of tools to identify and fix bugs both in serial and parallel programs. PRACE has received funding from the EU's Horizon 2020 Research and Innovation Programme under grant agreements 730913.

5 weeks, 4 hours per week

Dr. Geert Jan Bex
HPC analist/consultant at Hasselt University and University of Leuven.
Partnership for Advanced Computing in Europe (PRACE)

PRACE

The person named on this certificate has completed the activities in the attached transcript. For more information about Certificates of Achievement and the effort required to become eligible, visit futurelearn.com/proof-of-learning/certificate-of-achievement.

This learner has not verified their identity. The certificate and transcript do not imply the award of credit or the conferment of a qualification from Partnership for Advanced Computing in Europe (PRACE).

TRANSCRIPT

Augustine Kudiyirippil

has completed the following course:

DEFENSIVE PROGRAMMING AND DEBUGGING
PARTNERSHIP FOR ADVANCED COMPUTING IN EUROPE (PRACE)

97%
AVERAGE TEST SCORE

This course covered topics on reducing the number of bugs in your code by adopting a defensive programming style and some good development practices, how to create good documentation, how to detect software defects at an early stage by using compiler options and how to build a consistent and efficient collection of unit tests, how to use debuggers effectively and how to use verification tools to find memory related problems for both serial and parallel problems.

STUDY REQUIREMENT
5 weeks, 4 hours per week

LEARNING OUTCOMES
- Develop good written software codes
- Produce clear and useful software documentation
- Identify software bugs
- Solve software bugs

SYLLABUS
- Defensive programming: the use of good coding style, documentation strategies and good code testing
- Preventing bugs: how to use compiler flags and static code checkers to identify bugs in an early stage
- Finding bugs: debugging concepts and technics
- Using the debugging tools GDB and Valgrind to fix serial programs
- Debugging parallel code: using Intel Inspector and ITAC

This transcript should be read alongside the accompanying Certificate of Achievement.
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