

ARTIFICIAL INTELLIGENCE

DAUIN - Artificial Intelligence for Trustworthiness of Computing Systems

Funded By	Dipartimento DAUIN
Supervisor	DI CARLO STEFANO - stefano.dicarlo@polito.it
Contact	SAVINO ALESSANDRO - alessandro.savino@polito.it DI CARLO STEFANO - stefano.dicarlo@polito.it
Context of the research activity	Ensuring trustworthiness in computing systems resorting to continuous learning-based AI approaches
Objectives	Modern computing architectures include many dedicated hardware components to perform advanced computations and fulfill several technological trends and challenges, such as the Internet of Things and Autonomous Driving. The use of multi-core microprocessors, memories, DSPs, and many other components executing complex software makes these systems' trustworthiness (i.e., dependability and security) an open challenge. The purpose of the Ph.D. is to investigate methodologies for ensuring trustworthiness in computing systems resorting to continuous learning-based AI approaches.
Skills and competencies for the development of the activity	Candidates must have a solid background in machine learning and data science. They must also have good skills in working with embedded hardware and FPGA prototyping with an emphasis on emerging computer architectures. The candidate must also have excellent programming skills in Python and C. The candidate is requested to speak fluent English and be able to write essays in English.