Robert B. France Ph.D. - Full Biography

Dr. Robert France is a Professor Laureate at Colorado State University. He was born in Jamaica, but raised in Guyana and St. Vincent and the Grenadines. He graduated from the University of the West Indies (UWI), St. Augustine in 1984, with a BSc. granted with First Class Honors. He majored in Computer Science and Mathematics. He also received the Third Year Prize for best performance by a student in the final year from UWI in 1984. He attended Massey University in New Zealand under a Commonwealth Scholarship, where he graduated with a Ph.D. in Computer Science in 1990. His doctoral research was the first to investigate the coupling of formal, mathematically-based, software specification languages with informally defined specification languages used by practitioners in the software development industry. This coupling allows software developers to use informal languages they are familiar with, to describe software designs, mechanically translate the design specification to a more formal specification expressed in a formal specification language, and use the formal specification to uncover design errors through rigorous analysis. Such rigorous analysis is not possible with use only of informal specification languages. His doctoral research spawned the "Integrated Methods" research community that focused on integrating different forms of formal and informal specification techniques. In the late nineties this community evolved into the "Rigorous Model Driven Software Development" research community.

After graduating from Massey University, Dr. France joined the University of Maryland at College Park as a Post-Doctoral Researcher in 1990. While at UMD he worked with Professor Vic Basili, the world's top software engineering researcher. There he continued his work on integrated methods and on reverse engineering code to formal specifications. In 1992, he joined Florida Atlantic University as an Assistant Professor and in 1998 he joined Colorado State University where he is currently a Full Professor.

In the nineties, Professor France's research focused on making the industry standard software modeling language - the Unified Modeling Language (UML) - which at the time was informally defined, a more formal language to facilitate rigorous analysis of UML models. He co-founded the precise UML (pUML) group together with Professor Andy Evans from the University of York, UK. The pUML group was an international group of scientists collaborating on developing formal semantic foundations for the UML. Professor France and his pUML colleagues became involved in the UML Revision Task Forces which produced later versions of the UML, taking into consideration results produced by the group. The UML is currently one of the most widely used standard modeling languages in the Computer Science industry.

In 1999, Professor France and colleague, Professor Bernhard Rumpe of the University of Munich, Germany, organized the first full conference on the UML in Colorado. This annual conference evolved into MODELS (Model Driven Engineering Languages and Systems) in 2005. Professor France was responsible for the first MODELS conference being held in Montego Bay, Jamaica, in 2005. Faculty from UWI and the University of Technology, Jamaica were involved in the organization of the conference.

Professor France is also a founding editor-in-chief of the Springer journal on Software and Systems Modeling. He has authored and published hundreds of collaborated journals and several books.

In 2008, Professor France and his pUML collaborators were awarded a Ten Year Most Influential Paper at MODELS for their paper on formalizing the UML published in 1998. Professor France has also received four best paper awards, including a paper that he and his then doctoral student from Jamaica, Emanuel Grant, wrote on an internet-based education model for the Caribbean. This paper was presented in 1999 at the Tel-isphere'99 Commonwealth of Learning conference, Bridgetown, Barbados.

Professor France is in high demand as an international speaker. He has given numerous invited and keynote talks, tutorials and Summer School lectures on his work across the world. He has also been a Visiting Professor/Researcher at UWI-Mona, Jamaica; University of Technology, Jamaica; Sintef, Norway; Lancaster University, UK; University of Rennes, France; University of Pau, France; University of Nice, France; and New University of Lisbon, Portugal.

In 2013, Dr. France was awarded a 5-year International Chair at INRIA, the French National Institute for research in Computational Sciences. In 2014, he was awarded a Senior Dahl-Nygaard Award for his visionary and pioneering, long-term research contributions to formalizing software modeling languages by AITO, the group that organizes the European Conference on Object-Oriented Programming. Professor France was also awarded a Colorado State University, College of Natural Sciences Professor Laureate in 2014.

Professor France has also been active in the international Computer Science curriculum development community. He was a steering committee member of the international non-profit computer association's IEEE/ACM 2013 Computer Science Curriculum Recommendation, CS2013. The final document produced by this committee is a set of guidelines for developing Computer Science undergraduate programs. Computer Science departments around the world, including those in the Caribbean, are currently using these guidelines to evaluate their programs or to develop new programs. Dr. France was also chair of the IEEE Curricula Committee, with responsibilities which include monitoring and managing funding for the activities of the CS2013 committee. Professor France has also served on ABET Computer Science program accreditation teams in the US, and was chair of the UWI-Mona accreditation team in 2009. He has also acted as an evaluator of the Computer Science programs at the University of Technology, Jamaica, and has advised them, together with his colleagues at ABET, on matters related to obtaining ABET accreditation for their engineering programs.

Dr. France is currently a Visiting Professor at UWI-Mona where he is establishing research programs that put UWI researchers in touch with his research collaborators in the US and Europe. He has done the same for researchers at the University of Technology. He has also worked with the Government of St. Vincent and the Grenadines on providing computer programming and network courses at the National Institute for Technology. He has been on the Ph.D. committees of a number of students at UWI and the University of Technology.