

Nestor Catano

Cali, Colombia, 750026
(+57) 3114143595 | nestor.catano@gmail.com
<https://sites.google.com/view/nestorcatano/home>
<https://www.linkedin.com/in/nestor-catano>

Professional Profile

Software engineer with extensive experience in Java, Objective Caml, Python, Lisp, and Scheme. Interested in leveraging strong technical skills and current studies in cybersecurity in a security engineering role.

Education

University of California, Berkeley, USA – Master of Information and Cybersecurity 2020 (anticipated)
Relevant Courses: Cryptography.

University Paris VII, France – PhD in Computer Science 2004
Relevant Courses: Discrete Mathematics, Deductive Proof.

University Paris VII, France – Master in Computer Science 2001
Relevant Courses: Synchronous Languages, Constraint Programming, Program Subtyping.

Universidad del Valle, Colombia – Bachelor of Computer Science 1999
Relevant Courses: Algorithms, Data Structures, Complexity and Algorithms, Operating Systems, Assembler, Formal Languages, Compilers, Object-Oriented Programming, Functional Programming.

Skills and Tools

- Programming: Java, Python, Objective Caml, ML, Lisp, Scheme
- Security: CoCalc, Jupyter Notebooks with Python
- Operating Systems: Mac OS X, Linux, Windows

Software Developments

- EventB2Java: <https://github.com/ncatanoc/eventb2java>
- Chase: <https://github.com/ncatanoc/chasetool>
- MemJava: <https://github.com/ncatanoc/memjava>

Experience

I am a software engineer and a computer scientist; my main research area is the use of formal methods for software engineering. I specialize in program specification and verification using JML and design-by-contract, and in the use of correctness-by-construction techniques with Event-B to develop critical software. My main research goal is to use formal methods techniques and to develop software tools that improve the quality of software systems.

Associate Professor , Innopolis University, Kazan, Russia	2016 – 2019
Invited Professor , Carnegie Mellon University, Pittsburgh, USA	2015 – 2015
Assistant Professor , University of Madeira, Madeira, Portugal	2010 – 2015
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Assistant Professor , University of Madeira, Madeira, Portugal	2008 – 2010
Pos-Doctoral Researcher , University of York, Yorkshire, United Kingdom	2006 – 2008