Leandro Ezequiel Nahabedian

Education

2015–2020	**Ph.D Candidate in Computer Science**, *University of Buenos Aires*, Argentina Advisor: Sebastian Uchitel
2013–2014	**Master in Computer Science**, *University of Buenos Aires*, Argentina Advisor: Nicolás D'Ippolito
2007–2013	**Bachelor in Computer Science**, *University of Buenos Aires*, Argentina

Research and Professional Interests

During my PhD I worked on the problem of dynamic system reconfiguration: given a system that is running and it is currently satisfying specific requirements, for some reason, it must be updated to a new system that must satisfy new requirements. The idea is to allow systems to keep executing while a reconfiguration takes place which is a desired attribute for continuous operation systems such as a production cells or software that cannot be stopped. In my work I showed how controller synthesis can be used to solve this problem. In addition, I with this approach I made some contributions in the area of business process management (BPM) showing improvements in a practical scenario. BPM are widely used in the industry to organise and manage complex process in large organizations.

During my studies I mastered the topics of formal verification of behavioural models by using model checking and automated controller synthesis. My research group (LaFHIS) is also very active in the field of program analysis and testing and I got the chance to get some experience on those topic too by taking advanced courses and collaborating with other researchers. For my postdoc studies I am highly interested in program analysis and testing and I strongly believe my background both in controller synthesis and program analysis could be a good asset for contributing in program analysis projects.

Academical Experience

Publications

BPM 2019	**L. Nahabedian**, V. Braberman, N D'Ippolito, J. Kramer, S. Uchitel. ***Dynamic Reconfiguration of Business Processes***, in *International Conference on Business Process Management* Vienna, Austria
IEEE-TSE 2018	**L. Nahabedian**, V. Braberman, N D'Ippolito, S. Honiden, J. Kramer, K. Tei, S. Uchitel. ***Dynamic Update of Discrete Event Controllers***, in *IEEE Transactions on Software Engineering*
ICSE 2017	**L.Nahabedian**. **Dynamic Update of Business Process Management**. in *International Conference on Software Engineering - Doctoral Symposium*, Buenos Aires, Argentina.
SEAMS 2016	**L.Nahabedian**, V.Braberman, N.D'Ippolito, S.Honiden, J.Kramer, K.Tei, S.Uchitel. **Assured and Correct Dynamic Controller Update** in *International Symposium on Software Engineering for Adaptive and Self-Managing Systems*, Austin, Texas - ♙ ***Best Paper Award***

Participation in Projects

Mar 2014 Jun 2014	**Research Assistant**, *National Institute of Informatics*, Tokyo, Japan I researched in discrete event controller synthesis with an approach of self-adaptive software. I develop a new technique in the MTSA tool so as to build controllers that allow the change of the environment and ensure new goals without rebooting the system. The work done on my thesis begins at this internship that was held in Tokyo, Japan and supervised by professors Nicolás D'Ippolito and Kenji Tei.
May 2019 Jun 2019	**Research Assistant**, *University of Copenhagen*, Denmark I'm visiting the University of Copenhagen to work on Business Process reconfiguration in the context of Dynamic Condition Response Graphs. I'm having the chance to collaborate with many researchers of the *Computer Science Department* of the University and also of their industry partner *DCR Solutions*.

Human Resources Training

Mar 2015 Dec 2018	**Advisor of Master Thesis**, *Universidad de Buenos Aires*, Argentina I directed Victor Wjugow for getting his Master degree. Controllers that can manage many updates without having a bloating controller are produced by the presented technique. These updates can be updated when the environment in which they are running change, the goals to be satisfy are impossible to achieve or the system acquire new abilities and it needs to exploit them. How to handle many updates without disrupting or stopping the execution is a common question in the self-adaptation software area.
Ene 2015 Jun 2017	**Advisor of Master Thesis**, *Universidad de Buenos Aires*, Argentina I directed Ivan Pasquini for getting his Master degree. Our work presents a novelty solution for problems where properties of the environment are not completely known. We direct to explore that environment so as to get only the information needed to solve the problem. This work has many applications in the area of robotics, networks, etc.

Honors & Awards

May 2016	♗ **Best Paper Award** at *International Symposium on Software Engineering for Adaptive and Self-Managing Systems* (SEAMS'16).
Apr 2015 Mar 2020	♗ **Ph.D. Scholarship**, *National Scientific and Technical Research Council (CONICET)*, Argentina.
Ago 2012 Ago 2014	♗ **ICT Scholarship**, *Ministry of Science and Technology*, Argentina I got a scholarship for two years awarded by the Ministry of Science and Technology of the Republic of Argentina to get the degree in master in computer science. The beneficiaries of this plan were chosen based on the number of test taken, the years undertaken in the study and obtained grade point average.

Teaching Experience

Ago 2015 -	**Teaching assistant** *Universidad de Buenos Aires*, Buenos Aires, Argentina I am giving lecture for Software Engineering course in University of Buenos Aires.

Industrial Experience

Nov 2012 Apr 2015	**Project Leader / Software engineer**, *National Ministry of Interior*, Argentina I coped with different projects that requires programming in many languages. Mainly, I used PYTHON but also I worked with JAVA and PHP. Then, I also work as a Project leader. We developed a system for assigning the time that each media outlet gave to each political party for their advertising campaign for 2013 and 2015 Argentine elections. Our system also provide a web application that allows the media outlets and the political parties to communicate between them, so as to decide which TV spot they will use and when.
May 2012 Oct 2012	**Python developer**, *Core Security Technologies*, Buenos Aires, Argentina Company that develops software for analysis of vulnerabilities. My work consist in developing a system for adding, removing or editing tasks in UNIX crontab file. Another project was to initiate a server in a virtual machine with OPENBSD to be used as a web server. To achieve this goal I had to install all the packages needed to build a web service.
May 2010 Dic 2011	**ActionScript2/Python developer**, *MetroGames*, Buenos Aires, Argentina Company that makes video games for social networks. I was one of the developers of a particular game called Fashion World. The design patter that we used to implement that game was MVC and the language was ACTIONSCRIPT2. Afterwards, I worked with PYTHON to make internal systems to be used within the company. These programs were part of the internal infrastructure of the company. For instance, a system that manage the deployment of a project.
Feb 2010 May 2010	**Web developer**, *Intelligenx*, Buenos Aires, Argentina I did an internship for this company where I had two projects. Firstly, we produced a tool for web scrapping different pages using XPATH and REGULAR EXPRESSIONS. By doing this, the tool fills a database with information about many companies stores such as address, names, etc. After that, we produced a web page that use data for providing yellow pages service. We used JAVA/HIBERNATE to create the application.

Languages

Spanish	**Mother tongue**
English	**B2** (First Certificate in English 2006)