Résumé

Hoang Gia NGUYEN

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Citizenship: Vietnamese

Education

2015–2018 **PhD of Software Engineering**, *LIPN Laboratory*, Paris 13 University, Villetaneuse, France.

2012–2014 **Master of Software Engineering**, *Bordeaux University*, French Universities Program – Vietnam National University, Ho Chi Minh City, Vietnam.

2008–2012 **Bachelor of Software Engineering**, *Hoa Sen University*, Ho Chi Minh City, Vietnam.

2005–2008 **Gifted student of mathematics, physics and chemistry**, *Nguyen Chi Thanh High School*, Ho Chi Minh City, Vietnam.

Master Thesis

Title *Distributed verification of parametric real-time systems*

Supervisors Assoc. Prof. Étienne ANDRÉ and Prof. Laure PETRUCCI

Cooperative Supervisors Assoc. Prof. Camille COTI and Assoc.Prof. Sami EVANGELISTA

Description improve existing algorithms and develop new efficient parallel distributed algorithms for parameter synthesis, and implement these algorithms in the IMITATOR tool.

Achievements

- **2014:** 1st class student in 2nd year of master (M2) with GPA: 15.6
- **2013:** 2nd class student 1st year of master (M1) with GPA: 14.4
- **2008-2012:** received Bachelor degree with GPA: 2.84/4.0

Publications

- Étienne André, Giuseppe Lipari, Hoang Gia Nguyen and Youcheng Sun, **Reachability Preservation Based Parameter Synthesis for Timed Automata**. In Klaus Havelund, Gerard Holzmann, Rajeev Joshi (eds.), 7th NASA Formal Methods Symposium NFM 2015, LNCS9058, Springer, pages 50–65, April 2015. Acceptance rate: 31%.
- Étienne André, Camille Coti, Hoang Gia Nguyen, **Enhanced Distributed Behavioral Cartography of Parametric Timed Automata**, 17th International Conference on Formal Engineering Methods ICFEM 2015.

Talk at International Event

- **Enhanced Distributed Behavioral Cartography of Parametric Timed Automata**, SynCoP 2015, April 2015, London, UK

Skills

Formal Methods	Model Checking, Theorem Proving, Parametric Timed Automata, Temporal Logic, Petri Nets, Event-B
Model Checker	Altarica-Studio, Rodin IDE, IMITATOR, SPIN
Languages	C, C#, Java, Ocaml, T-SQL, PL/SQL, Prolog, HTML, XML, JavaScript/AJAX, CSS
Databases	Oracle Database, MS SQL, ODBMS, MySQL
Tools	Microsoft Visual Studio, Eclipse IDE, NetBean IDE, Borland C++, Code::Block ; SVN, Git, Maven
OOAD/OOP & Tools	Object Oriented Analysis (OOA), Object Oriented Design (OOD), Object Oriented Programming (OOP), Unified Modeling Language (UML) ; IBM Rational Rose, Sparx, Visual Paradigm, Enterprise Architect, ArgoUML

Experience

Vocational

2014 — 2015

Intern, *LIPN Laboratory - Paris 13 University*, Paris - France.
Working with: Associate Prof. Étienne André, Prof. Laure Petrucci, Associate Prof. Sami Evangelista, Associate Prof. Camille Coti;
Main Works:
- Understand formal methods and verification of parametric timed systems;
- Design and optimize new algorithms that can be executed on clusters;
- Work on new theoretical work on model checking parametric timed automata;

2014 — 2015

Member, *SAVE - Laboratory of Systems Analysis and VErification*, Ho Chi Minh City - Vietnam.
Member of the SAVE research Laboratory.

2010 — 2012

System Administrator, *Hoang Cuong Electronic*, Ho Chi Minh City - Vietnam.
Did system administration work.
Main Duties:
- Administrate the servers;
- Design, develop and manage company e-commercial website;

Projects at Bordeaux University

2013 — 2014

Cloud Storage Integration, *Team size: 3*.
Supervisor: David BROMBERG (David.Bromberg@labri.fr).
Role: Main Developer.
Main Works:
- Integrate cloud storage services (Google Drive, OneDrive, Dropbox, Amazon S3) as one RESTful Web service for easing accessing and managing by Web client

2014
2014

K-modes Algorithm, *Team size: 2.*

Supervisors: Maylis DELEST (Maylis.Delest@labri.fr) and Thanh Tung TRAN (Thanh-Tung.Tranarobaselabri.fr).

Role: Team Leader.

Main Works:

- Implement, visualize and develop K-mode Algorithm (a version of K-means) for fast clustering big categorical data

2013
2014

Airline Booking Online System, *Team size: 4.*

Supervisor: Jérôme CHARTON (Charton@lab327.net).

Role: Team Leader.

Main Works:

- Design and develop a Web Application (MVC architecture, C#, .Net, MS SQL) consists of booking tickets online, managing flights, tickets, employees ..etc

2013
2013

Label Propagation Algorithm, *Team size: 4.*

Supervisors: François QUEYROI (QueyRoi@labri.fr) and Maylis DELEST (Maylis.Delest@labri.fr).

Role: Team Leader.

Main Works:

- Implement, visualize and develop Algorithm Based on: Usha Nandini Rahavan, Reka Albert and Soundar Kumara, " Near linear time algorithm to detect community structures in large-scale networks"

Projects at Hoa Sen University

2011
2011

Voice Recognition - **Voice biometric authentication**, *Team size: 4.*

Role: Team Leader.

Main Works:

- Develop an application of using Data Mining's algorithms (K-means, K-nearest ..etc) and Artificial Intelligence's algorithm for Voice Security System. The input is voice sample, then analyzes to verify the identity of the individual.

2011
2011

Tour Management, *Team size: 4.*

Role: Team Leader.

Main Works:

- Design and develop Booking Tours Application includes HR module, CRM module, Contract management module, tour management module ..etc. (Implemented on Windows Application and Web Application).

2009
2010

Task Notification, *Team size: 3.*

Role: Team Leader.

Main Works:

- Design and develop a Tasks Management Application for Windows Mobile. The application will notify user the events , tasks on time

2009
2010

University Library Project, *Team size: 3.*

Role: Team Leader.

Main Works:

- Design and develop Library Application consists of functions such as managing books, borrower, book prices, book-place indexing, import/export books. . . etc (Implemented on Windows Application and Web Application)

2008
2008

Book Store (Web Application), *Team size: 3.*

Role: Main Developer.

Main Works:

- Design and develop an application using 3-tier architecture, .Net, MS SQL

References

LIPN Laboratory - Paris 13 University

○ **Étienne ANDRÉ**
Associate Professor
Researcher and Lecture (Logic, Computation and Reasoning team)
LIPN Laboratory
Paris - France
✉ Etienne.Andre@univ-paris13.fr

○ **Laure PETRUCCI**
Professor
Director
LIPN Laboratory
Paris - France
✉ Laure.Petrucci@lipn.univ-paris13.fr

LaBRI Laboratory - Bordeaux University

○ **Anne DICKY**
Associate Professor
Director of Bordeaux University Software Engineering Program in Ho Chi Minh City
LaBRI Laboratory
Bordeaux - France
✉ Anne.Dicky@labri.fr

SAVE Laboratory - University of Technology

○ **Thanh Tho QUAN**
Associate Professor
Head, Department of Software Engineering
University of Technology
Ho Chi Minh - Vietnam
✉ QTTho@cse.hcmut.edu.vn

Languages

Vietnamese	**Native**	*Mother Tongue*
English	**Daily practice**	*All work performed in English*
French	**Basic**	*Learning since 2015*

Interests

Research Model Checking and Verification, Distributed Computing, Artificial Intelligence, Data Mining and Big Data.

Leisure Exploring new technology, Swimming, hiking, reading books, watching movies