

LUIS EDUARDO GAMBOA GUZMAN

Curriculum Vitae, July 2020

1 Education

- Ph.D. in Computer Science
 - Université de Montréal
 - Department of Computer Science and Operations Research
 - Thesis: Accurate and Efficient Strategies for the Appearance Filtering of Complex Materials
 - Supervisor: Derek Nowrouzezahrai
 - 2015-2020
- M.Sc. in Electrical Engineering, Computer Systems focus area.
 - Universidad Michoacana de San Nicolás de Hidalgo.
 - Faculty of Electrical Engineering.
 - Thesis: Perceptual Compression of Digital Audio
 - Supervisor: Felix Calderon Solorio
 - 2003-2005
- B.Eng. in Computer Systems, major in Networking and Distributed Systems.
 - National Institute of Technology campus Morelia, Mexico.
 - 1998-2003

2 Professional Appointments

- Associate Professor: Faculty of Electrical Engineering, Universidad Michoacana de San Nicolás de Hidalgo. September 17th 2008 to present.
- Academic Technician: Computing Laboratory, Faculty of Electrical Engineering, Universidad Michoacana de San Nicolás de Hidalgo. August 16th 2005 to September 16th 2008.
- Lecturer: Professional Division, Instituto Tecnológico de Estudios Superiores de Monterrey, campus Morelia. 2006 to 2008.

3 Publications

- *An Efficient Transport Estimator for Complex Layered Materials*. Luis E. Gamboa, Adrien Gruson and Derek Nowrouzezahrai. Computer Graphics Forum. Volume 39, issue 2. Pages 363-371. May 2020. *Presented at Eurographics 2020 (honorable mention)*.
- *Scalable Appearance Filtering for Complex Lighting Effects*. Luis E. Gamboa, Jean-Philippe Guertin, and Derek Nowrouzezahrai. ACM Transactions on Graphics. Volume 37, issue 6. Article 277. November 2018. *Presented at SIGGRAPH Asia 2018*.
- *Fusing a Laser Range Finder and a Stereo Vision System to Detect Obstacles in 3D*. Advances in Artificial Intelligence - IBERAMIA 2004, 9th Ibero-American Conference on AI, Puebla, Mexico, November 22-25, 2004, Proceedings p. 555. Lecture Notes in Computer Science 3315 Springer 2004.

4 Awards and Honors

- Outstanding Docent Evaluation: Instituto Tecnológico de Estudios Superiores de Monterrey Campus Morelia. August 3rd 2007.

5 Related Professional and Pedagogical Diplomas

5.1 Professional

- CCNA Exploration: LAN Switching and Wireless. Cisco Networking Academy. March 4, 2010
- CCNA Exploration: Routing Protocols and Concepts. Cisco Networking Academy. August 8, 2009
- CCNA Exploration: Network Fundamentals. Cisco Networking Academy. January 31, 2009

5.2 Pedagogical

- Use of dynamic software in solving mathematical problems. Faculty of Electric Engineering, UMSNH. August 21, 2009
- Cognitive processes. Faculty of Electric Engineering, UMSNH. August 22, 2008.
- Collaborative and autonomous learning characteristics. Department of Academic and Human Development, ITESM Campus Morelia. April 2006

6 Programming Languages Abilities

- C: expert level. Including UNIX processes and threads, semaphores and sockets.
- C++: advanced level. Including basic level QT, Gtk and Windows MFC API (Visual C++).
- PHP: advanced level.
- SQL: advanced level. Very familiar with MySQL and PostgreSQL, familiar with MS SQL Server.
- UNIX Shell: intermediate level.
- Java: intermediate level.
- Matlab/Octave: intermediate level.
- Python: intermediate level.
- Assembly for the x86: intermediate level.
- LISP: basic level.
- PROLOG: basic level.
- Mathematica: basic level.

7 Conference Activity/Participation

7.1 Technical Papers Programs

- Presenter at Eurographics 2020 (Norrköping, Sweden). *An Efficient Transport Estimator for Complex Layered Materials*.
- Presenter at SIGGRAPH Asia 2018 (Tokyo, Japan). *Scalable Appearance Filtering for Complex Lighting Effects*.

7.2 Campus or Departmental Talks

- *The Computer Engineering Program*. To prospective students as part of the admission process to the undergraduate program at the Faculty of Electric Engineering, UMSNH. August 2012 and August 2013
- *Audio Perceptual Compression*. Filosofía de la Ingeniería Eléctrica: Theoria et Praxis, April 26th 2006. Faculty of Electric Engineering, UMSNH.
- *Digital Audio Perceptual Compression*. II Coloquio de Investigación, February 7th and 8th 2006. Postgrade Studies Division of the Faculty of Electric Engineering, UMSNH.
- *Digital Audio Perceptual Compression*. I Coloquio de Investigación, August 15th 2005. Postgrade Studies Division of the Faculty of Electric Engineering, UMSNH.

8 Theses Supervised

- “Pre-echo reduction with the use of variable length blocks in a perceptual audio codec” (Bachelor in Computer Engineering). Paulina Rodriguez Cardenas, January 27th, 2014

9 Technological Development Experience

- Project “Internal Scholar Control”. Faculty of Electric Engineering, UMSNH. 2005 to 2011.
- Project “System for Alumni”. Faculty of Electric Engineering, UMSNH. 2008
- Project “System for the Computing of Customer Attention Indicators”. Comisión Federal de Electricidad, División Centro-Occidente. February 3rd 2003 to May 19th 2003.

10 Teaching Experience

10.1 Undergraduate Curricular Courses

- Faculty of Electric Engineering, Universidad Michoacana de San Nicolás de Hidalgo.
 - *Discrete Mathematics*.
Semesters: 2008-2008, 2009-2010, 2020-2020
 - *Computer Networks*.
Semesters: 2009-2010
 - *Computer Organization*.
Semesters: 2008-2009, 2010-2010, 2010-2011
 - *Computer Programming*.
Semesters: 2010-2010, 2014-2015
 - *Computer Tools*.
Semesters: 2005-2006, 2007-2008, 2009-2010, 2010-2010, 2013-2014
 - *Formal Languages and Automata*.
Semesters: 2011-2011
 - *Logic*.
Semesters: 2010-2011, 2011-2011, 2011-2012, 2012-2012, 2012-2013, 2013-2013, 2013-2014, 2014-2014, 2014-2015, 2015-2015, 2020-2020
 - *Operating Systems*.
Semesters: 2009-2009, 2010-2010, 2010-2011, 2011-2011, 2011-2012, 2012-2012, 2012-2013, 2013-2013, 2013-2014, 2014-2014, 2014-2015, 2015-2015, 2020-2020
 - *Programming Paradigms*.
Semesters: 2008-2009, 2009-2010, 2014-2015

- Professional Division, Instituto Tecnológico de Estudios Superiores de Monterrey, campus Morelia.
 - *Computation 2 (programming in C)*.
Semesters: 2006-2007, 2007-2007
 - *Operating Systems*.
Semesters: 2006-2006, 2007-2007, Summer of 2007, 2007-2008

10.2 Workshops Instructor

- Computer Laboratory Management. Faculty of Electric Engineering, UMSNH. October 24th to December 2nd 2008.
- Python. Faculty of Electric Engineering, UMSNH. January 23rd to February 3rd 2006.

11 Departmental/University Service

- Titular Member of the Faculty's Technical Council. 2013 to present
- Coordinator of the Undergraduate Program in Computer Engineering. 2011-2013
- Titular Member of the Faculty's Technical Council. 2009-2011

12 Languages

- Spanish, mother tongue.
- English, TOEFL score 627. Test date: December 11th, 2014
- French, DELF B2. Test date: February, 2015