

## Liam M. Mayron, Ph.D.

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CONTACT INFORMATION	Address and phone by request <i>E-mail:</i> liam@mayron.net
RESEARCH INTERESTS	Content-based image retrieval, human and computer vision, image and video processing, information retrieval, multimedia systems, the Semantic Web, Web-based technologies, data mining
EDUCATION	<p><b>Florida Atlantic University</b>, Boca Raton, FL, USA <i>Ph.D., Computer Engineering</i> <span style="float: right;"><b>May 2008</b></span></p> <p><b>University of Florida</b>, Gainesville, FL, USA <i>M.S., Computer Engineering</i> <span style="float: right;"><b>May 2004</b></span></p> <p><b>Florida Atlantic University</b>, Boca Raton, FL, USA <i>B.S., Computer Engineering</i> <span style="float: right;"><b>May 2002</b></span></p>
PROFESSIONAL EXPERIENCE	<p><b>Harris Corporation</b>, Melbourne, FL, USA <i>Software Engineer, Level 3</i> <span style="float: right;"><b>June 2008 – Present</b></span></p> <p><b>CNIguard Ltd.</b>, London, England <i>Consultant</i> <span style="float: right;"><b>September 2001 – Present</b></span> Responsible for research, analysis, and evaluation of security-related business proposals. Helped introduce the Hatchguard intrusion detection system to the American market.</p> <p><b>ENewsBar Inc.</b>, Boca Raton, FL, USA <i>Founder, Lead Designer</i> <span style="float: right;"><b>July 2003 - February 2006</b></span> Developed a content aggregation service and search engine, an online journal (blog) service, and a popular ticker application for disseminating information. The company was sold to MediaTrust Inc.</p>
RESEARCH EXPERIENCE	<p><b>Florida Atlantic University</b>, Boca Raton, Florida, USA <i>Ph.D. Student, Graduate Research Assistant</i> <span style="float: right;"><b>May 2004 – May 2008</b></span></p> <ul style="list-style-type: none"><li>• Dissertation: “Image Retrieval Using Visual Attention”, advised by Oge Marques, Ph.D.</li><li>• Funded by two sponsored research projects, one dealing with secure multimedia telecommunications, the other focusing on stereoscopic (3D) video processing and segmentation.</li><li>• Member of MLAB, Florida Atlantic University’s Multimedia Laboratory.</li></ul>
TEACHING EXPERIENCE	<p><b>Florida Atlantic University</b>, Boca Raton, Florida, USA <i>Adjunct Instructor</i> <span style="float: right;"><b>Fall 2005 – Spring 2008</b></span> Taught “Introduction to Microprocessor Systems” (Fall 2005, Fall 2006, Spring 2008), a required junior-level class, and “Introduction to Data Communications” (Spring 2007), a senior-level technical elective. Responsible for all course activities.</p> <p><b>University of Florida</b>, Gainesville, Florida, USA <i>Teaching Assistant</i> <span style="float: right;"><b>Fall 2002 – Spring 2003</b></span> Taught weekly lab sections, assisted in developing and grading projects and exams, and met with students for “Navigating the Internet”, an undergraduate class.</p>

HONORS, AWARDS,  
AND MEMBERSHIPS

- Nominee, Florida Atlantic University Distinguished Teacher of The Year, 2007
- Ph.D. Student Representative, Florida Atlantic University Graduate Council, 2007
- Coach, Florida Atlantic University Programming Team, 2006 and 2007
- Member, IEEE
- Member, IEEE Computer Society
- Member, ACM
- Member, Upsilon Pi Epsilon (computer disciplines honor society)
- Member, Tau Beta Pi (engineering honor society)
- Member, Golden Key (international honor society)
- Recipient, Florida Atlantic University Faculty Award for Outstanding Undergraduate Leadership, Spring 2002
- President, Florida Atlantic University Student Chapter of the ACM, 2001-2002
- Vice President, Florida Atlantic University Student Chapter of the ACM, 2000-2001

PATENTS

- **Liam M Mayron** and Oge Marques, “System and Methods of Image Retrieval”, Provisional patent filed December 2006, Serial #60/869,503

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DISSERTATION

- **Liam M. Mayron**, “Image Retrieval Using Visual Attention”, Florida Atlantic University, May 2008.

REFEREED JOURNAL  
PUBLICATIONS

1. Oge Marques, **Liam M. Mayron**, Gustavo B. Borba, and Humberto R. Gamba, “An attention-driven model for grouping similar images with image retrieval applications”, EURASIP Journal on Advances in Signal Processing, vol. 2007, Article ID 43450, 17 pages, 2007.
2. Oge Marques and **Liam M. Mayron**, “How can the semantic web improve the acquisition and sharing of knowledge?”, International Journal of Technology, Knowledge and Society, Volume 2, Issue 3, pp. 129-142, 2006.

REFEREED  
CONFERENCE  
PUBLICATIONS

1. **Liam M. Mayron** and Oge Marques. “Using a game to evaluate image retrieval, organization, and annotation”, First ICIP Workshop on “Multimedia Information Retrieval: New Trends and Challenges”, co-located with IEEE International Conference on Image Processing (ICIP) 2008, October 12-15, 2008, San Diego, California.
2. Alvaro Fonseca, **Liam M. Mayron**, Daniel Socek and Oge Marques, Design and Implementation of an Optical Flow-Based Autonomous Video Surveillance System, EuroIMSA 2008, March 17-19, 2008, Innsbruck, Austria.
3. Carlos Pertuz, **Liam M. Mayron**, Daniel Socek and Oge Marques, A model for detecting and tracking humans using appearance, shape, and motion, EuroIMSA 2008, March 17-19, 2008, Innsbruck, Austria.
4. Oge Marques, Alvaro Fonseca and **Liam M. Mayron**, “An Intelligent Multimedia Traffic Classifier with Security Applications”, IEEE SoutheastCon 2007, March 22-25, 2007, Richmond, VA.
5. Oge Marques, **Liam M Mayron**, Daniel Socek, Gustavo B Borba, and Humberto R Gamba, “An attention-based method for extracting salient regions of interest from stereo images”, International Conference on Computer Vision Theory and Applications (VISAPP), March 8-11, 2007, Barcelona, Spain.

6. Gustavo B Borba, Humberto R Gamba, **Liam M Mayron**, and Oge Marques “Integrated global and object-based image retrieval using a multiple examples query schema”, International Conference on Computer Vision Theory and Applications (VISAPP), March 8-11, 2007, Barcelona, Spain.
7. **Liam M Mayron** and Oge Marques “Design of a web-based interface for image retrieval”, International Conference on Web Information Systems and Technologies (WEBIST), March 3-6, 2007, Barcelona, Spain.
8. **Liam M Mayron**, Gustavo B Borba, Vladimir Nedovic, Oge Marques, and Humberto R Gamba, “A forward-looking user interface for CBIR and CFIR systems”, IEEE International Symposium on Multimedia (ISM), December 11-13, 2006, San Diego, CA.
9. Oge Marques, Phillip Auger, and **Liam M Mayron**, “SimViKi: a tool for the simulation of secure video communication systems”, IASTED International Conference on Communications, Internet, and Information Technology (CIIT) 2006, November 29 - December 1, 2006, St Thomas, US Virgin Islands.
10. Oge Marques, Phillip Auger, and **Liam M Mayron**, “Assessing contemporary issues in secure video communication systems”, International Symposium on System and Information Security (SSI) 2006, November 8-10, 2006, Sao Jose dos Campos, Sao Paulo, Brazil.
11. Gustavo B Borba, Humberto R Gamba, Oge Marques, and **Liam M Mayron**, “An unsupervised method for clustering images based on their salient regions of interest”, The 2006 ACM Multimedia Conference, October 22-27, 2006, Santa Barbara, CA.
12. Lakis Christodoulou, **Liam M Mayron**, Hari Kalva, Oge Marques, and Borko Furht, “3D TV Using MPEG-2 and H.264 View Coding and Autostereoscopic Displays”, The 2006 ACM Multimedia Conference, October 22-27, 2006, Santa Barbara, CA.
13. Hari Kalva, Lakis Christodoulou, **Liam M Mayron**, Oge Marques, and Borko Furht, “Challenges and opportunities in video coding for 3D TV”, Special Session on “3-D TV: Primed for Success?”, IEEE International Conference on Multimedia & Expo (ICME) 2006, July 9-12, 2006, Toronto, Canada.
14. Oge Marques, **Liam M Mayron**, Gustavo B Borba, and Humberto R Gamba, “On the potential of incorporating knowledge of human visual attention into CBIR systems”, Special Session on Perceptual Visual Processing, IEEE International Conference on Multimedia & Expo (ICME) 2006, July 9-12, 2006, Toronto, Canada.
15. Lakis Christodoulou, **Liam M Mayron**, Hari Kalva, Oge Marques, and Borko Furht, “Design and Evaluation of 3D Video System Based on H.264 View Coding”, International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV 2006), Newport, Rhode Island, May 22-23, 2006.
16. Oge Marques, **Liam M Mayron**, Gustavo B Borba, and Humberto R Gamba, “Using visual attention to extract regions of interest in the context of image retrieval”, 44th ACM Southeast Conference (ACMSE2006), Melbourne, FL, USA, March 10-12, 2006.