

Jean-François Lalonde

Curriculum Vitae

Computer Vision and Systems Lab
Electrical and Computer Eng.
Université Laval
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🌐 www.jflalonde.ca

EDUCATION

- 2011 **Ph.D. in Robotics**, Carnegie Mellon University.
Thesis: Understanding and Recreating Visual Appearance Under Natural Illumination
Microsoft Research Fellow, School of Computer Science Distinguished Dissertation Award
- 2006 **M.S. in Robotics**, Carnegie Mellon University.
Thesis: Data Structure for Efficient Dynamic Processing in 3-D
- 2004 **B.S. in Computer Engineering (hons.)**, Université Laval.

PROFESSIONAL APPOINTMENTS

- 2013–... **Assistant Professor**, Electrical and Computer Engineering, Université Laval, Québec, Canada.
Affiliated to the NSERC/Creaform Industrial Research Chair on 3D Scanning
Member of the Center for the Study of Distributed Intelligent Environments (REPARTI)
Member of the Big Data Research Center
- 2016–... **Associate Researcher**, Institut National d'Optique, Québec, Canada.
- 2012–2013 **Post-doctoral Associate**, Disney Research, Pittsburgh, USA.

PUBLICATIONS

Note about publications: In the field of computer vision, publishing at the main conferences (CVPR, ICCV, ECCV, 3DV, ICCP) is considered very prestigious. These conferences have a very thorough review process, where full 8-page papers are reviewed by 3 double-blind reviewers followed by an author rebuttal, a discussion between the reviewers, and ultimately a final decision by a committee of worldwide experts. Acceptance rates for posters are 20–25%, and 3% for oral presentations. Their CiteSeer impact factors rank in the top 5% of all computer science journals and conferences. **My publications have been cited more than 1,500 times**, which shows the impact of publishing at these conferences. The order in which authors appear matters. Typically, authors are listed in order of contribution, except the last author who provided funding and general guidance for the project.

Refereed Journal Articles

- [A1] Marc-André Gardner, Kalyan Sunkavalli, Ersin Yumer, Xiaohui Shen, Emiliano Gambaretto, Christian Gagné, and Jean-François Lalonde. “Learning to predict indoor illumination from a single image”. In: *ACM Transactions on Graphics (SIGGRAPH Asia)* 9.4 (2017).

- [A2] Mathieu Garon and Jean-François Lalonde. “Deep 6-DOF tracking”. In: *IEEE Transactions on Computer Graphics and Visualization* (2017).
- [A3] Minghui Tan, Jean-François Lalonde, Lavanya Sharan, Holly Rushmeier, and Carol O’Sullivan. “The perception of lighting inconsistencies in composite outdoor scenes”. In: *ACM Transactions on Applied Perception* 12.4 (Aug. 2015).
- [A4] Jean-François Lalonde, Alexei A Efros, and Srinivasa G Narasimhan. “Estimating the natural illumination conditions from a single outdoor image”. In: *International Journal of Computer Vision* 98.2 (June 2012), pp. 123–145.
- [A5] Jean-François Lalonde, Srinivasa G Narasimhan, and Alexei A Efros. “What do the sun and the sky tell us about the camera?” In: *International Journal of Computer Vision* 88.1 (May 2010), pp. 24–51.
- [A6] Ranjith Unnikrishnan, Jean-François Lalonde, Nicolas Vandapel, and Martial Hebert. “Scale selection for geometric fitting in noisy point clouds”. In: *International Journal of Computational Geometry & Applications* 20.5 (Oct. 2010), pp. 543–575.
- [A7] Jean-François Lalonde, Alexei A Efros, and Srinivasa G Narasimhan. “Webcam Clip Art: appearance and illuminant transfer from time-lapse sequences”. In: *ACM Transactions on Graphics (SIGGRAPH Asia 2009)* 28.5 (Dec. 2009), 131:1–131:10.
- [A8] Minh Hoai Nguyen, Jean-François Lalonde, Alexei A Efros, and Fernando de la Torre. “Image-based shaving”. In: *Computer Graphics Forum Journal (Eurographics 2008)* 27.2 (2008), pp. 627–635.
- [A9] Jean-François Lalonde, Derek Hoiem, Alexei A Efros, Carsten Rother, John Winn, and Antonio Criminisi. “Photo Clip Art”. In: *ACM Transactions on Graphics (SIGGRAPH 2007)* 26.3 (Aug. 2007).
- [A10] Jean-François Lalonde, Nicolas Vandapel, and Martial Hebert. “Data structures for efficient dynamic processing in 3-D”. In: *International Journal of Robotics Research* 26.8 (Aug. 2007).
- [A11] Jean-François Lalonde, Nicolas Vandapel, Daniel F Huber, and Martial Hebert. “Natural terrain classification using three-dimensional ladar data for ground robot mobility”. In: *Journal of Field Robotics* 23.10 (Oct. 2006), pp. 839–861.
- [Highly Selective Conference Papers](#)
- [C1] Yannick Hold-Geoffroy, Kalyan Sunkavalli, Sunil Hadap, Emiliano Gambaretto, and Jean-François Lalonde. “Deep outdoor illumination estimation”. In: *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*. 2017.
- [C2] Jinsong Zhang and Jean-François Lalonde. “Learning high dynamic range from outdoor panoramas”. In: *IEEE International Conference on Computer Vision (ICCV)*. 2017.

- [C3] Miguel Granados, Tunç Ozan Aydın, Jose Rafael Tena, Jean-François Lalonde, and Christian Theobalt. “Contrast use metrics for tone mapping images”. In: *IEEE International Conference on Computational Photography (ICCP)*. 2015.
- [C4] Yannick Hold-Geoffroy, Jinsong Zhang, Paulo F U Gotardo, and Jean-François Lalonde. “What is a good day for outdoor photometric stereo?” In: *IEEE International Conference on Computational Photography (ICCP)*. 2015.
- [C5] Yannick Hold-Geoffroy, Jinsong Zhang, Paulo F U Gotardo, and Jean-François Lalonde. “ x -hour outdoor photometric stereo”. In: *International Conference on 3-D Vision (3DV)*. 2015.
- [C6] Jean-François Lalonde and Iain Matthews. “Lighting estimation in outdoor image collections”. In: *International Conference on 3D Vision (3DV)*. 2014.
- [C7] Jean-François Lalonde, Alexei A Efros, and Srinivasa G Narasimhan. “Detecting ground shadows in outdoor consumer photographs”. In: *European Conference on Computer Vision (ECCV)*. 2010.
- [C8] Jean-François Lalonde, Alexei A Efros, and Srinivasa G Narasimhan. “Estimating natural illumination from a single outdoor image”. In: *IEEE International Conference on Computer Vision (ICCV)*. 2009.
- [C9] Jean-François Lalonde, Srinivasa G Narasimhan, and Alexei A Efros. “What does the sky tell us about the camera?” In: *European Conference on Computer Vision (ECCV)*. 2008.
- [C10] Jean-François Lalonde and Alexei A Efros. “Using color compatibility for assessing image realism”. In: *IEEE International Conference on Computer Vision (ICCV)*. 2007, pp. 1–8.
- [C11] Jean-François Lalonde, Nicolas Vandapel, and Martial Hebert. “Data structure for efficient processing in 3-D”. In: *Robotics: Science and Systems I*. MIT Press, June 2005.
- [Refereed Conference Papers](#)
- [C12] Mathieu Garon and Jean-François Lalonde. “Deep 6-DOF tracking”. In: *International Symposium on Mixed and Augmented Reality (ISMAR)*. 2017.
- [C13] Maryam Ziaeefard, Jean-François Lalonde, and Robert Bergevin. “Deep uncertainty interpretation in dyadic human activity prediction”. In: *IEEE International Conference on Machine Learning and Applications*. 2017.
- [C14] Mathieu Garon, Pierre-Olivier Boulet, Jean-Philippe Doiron, Luc Beaulieu, and Jean-François Lalonde. “Real-time high resolution 3D data on the HoloLens”. In: *International Symposium on Mixed and Augmented Reality (ISMAR)*. 2016.

- [C15] Félix Labrie-Larrivée, Denis Laurendeau, and Jean-François Lalonde. “Depth texture synthesis for realistic architectural modeling”. In: *Computer and Robot Vision Conference (CRV)*. 2016.
- [C16] Miguel Granados, Tunç Ozan Aydın, Jose Rafael Tena, Jean-François Lalonde, and Christian Theobalt. “HDR image noise calibration for denoising tone mapped images”. In: *European Conference on Visual Media and Production (CVMP)*. 2015.
- [C17] Sébastien Michaud, Jean-François Lalonde, and Philippe Giguère. “Towards characterizing the behavior of LiDARs in snowy conditions”. In: *IROS Workshop on Planning, Perception and Navigation for Intelligent Vehicles*. 2015.
- [C18] Minghui Tan, Jean-François Lalonde, Lavanya Sharan, Holly Rushmeier, and Carol O’Sullivan. “The perception of lighting inconsistencies in composite outdoor scenes”. In: *ACM Symposium on Applied Perception*. 2015.
- [C19] Nicholas Heckman, Jean-François Lalonde, Nicolas Vandapel, and Martial Hebert. “Potential negative obstacle detection by occlusion labeling”. In: *IEEE/RSJ International Conference on Intelligent Robots and Systems*. 2007, pp. 2168–2173.
- [C20] Jean-François Lalonde, Christopher Bartley, and Illah Nourbakhsh. “Mobile robot programming in education”. In: *IEEE International Conference on Robotics and Automation (ICRA)*. May 2006.
- [C21] Ranjith Unnikrishnan, Jean-François Lalonde, Nicolas Vandapel, and Martial Hebert. “Scale selection for the analysis of point-sampled curves”. In: 2006, pp. 1026–1033.
- [C22] Jean-François Lalonde, Ranjith Unnikrishnan, Nicolas Vandapel, and Martial Hebert. “Scale selection for classification of point-sampled 3D surfaces”. In: *International Conference on 3-D Digital Imaging and Modeling (3DIM)*. 2005, pp. 285–292.
- [C23] Guy Godin, Jean-François Lalonde, and Louis Borgeat. “Dual-resolution stereoscopic display with scene-adaptive fovea boundaries”. In: *International Immersive Projection Technology Workshop*. 2004.
- [C24] Guy Godin, Jean-François Lalonde, and Louis Borgeat. “Projector-based dual-resolution stereoscopic display”. In: *IEEE Virtual Reality*. IEEE Computer Society, 2004, pp. 223–224.
- [C25] Jerome Vignola, Jean-François Lalonde, and Robert Bergevin. “Progressive human skeleton fitting”. In: *Conference on Vision Interface*. 2003.
- [Refereed Symposia Talks](#)
- [S1] Mathieu Garon and Jean-François Lalonde. “Deep 6-DOF tracking”. In: *Montreal AI Symposium*. 2017.
- [Refereed Symposia Posters](#)

- [S2] Marc-André Gardner, Kalyan Sunkavalli, Ersin Yumer, Xiaohui Shen, Emiliano Gambaretto, Christian Gagné, and Jean-François Lalonde. “Deep indoor illumination”. In: *Montreal AI Symposium*. 2017.
- [S3] Yannick Hold-Geoffroy, Kalyan Sunkavalli, Sunil Hadap, Emiliano Gambaretto, and Jean-François Lalonde. “Deep outdoor illumination estimation”. In: *Montreal AI Symposium*. 2017.
- [S4] Jinsong Zhang and Jean-François Lalonde. “Learning high dynamic range from outdoor panoramas”. In: *Montreal AI Symposium*. 2017.
- [S5] Yannick Hold-Geoffroy, Jinsong Zhang, Paulo F U Gotardo, and Jean-François Lalonde. “ x -hour outdoor photometric stereo”. In: *International Conference on Computational Photography*. 2016.
- [S6] Jean-François Lalonde, Alexei A Efros, and Srinivasa G Narasimhan. “Estimating the natural illumination conditions from a single outdoor image”. In: *International Conference on Computational Photography*. 2011.

[Patents](#)

- [P1] Jean-François Lalonde and Iain Matthews. “Predicting a light probe from an outdoor image”. Patent 9,639,773 B2 (US). May 2017.
- [P2] Miguel Granados, Rafael Tena, Tunç O. Aydin, Jean-François Lalonde, Christian Theobalt, and Iain Matthews. “High dynamic range and tone mapping imaging techniques”. Patent 9,275,445 B2 (US). Mar. 2016.
- [P3] Andrew N. Stein and Jean-François Lalonde. “Oriented, spatio-spectral illumination constraints for use in an image process”. Patent 8,934,735 B2 (US). Jan. 2015.
- [P4] Jean-François Lalonde. “Spatially-varying log-chromaticity normals for use in an image process”. Patent 8,842,910 B2 (US). Sept. 2014.
- [P5] Jean-François Lalonde. “Weighted entropy minimization for optimizing a log-chromaticity normal for use in an image process”. Patent 8,811,732 B2 (US). Aug. 2014.
- [P6] Jean-François Lalonde, Patrick Buehler, Bruce Maxwell, Casey Smith, Andrew Stein, and Richard Friedhoff. “Log-chromaticity clustering pipeline for use in an image process”. Patent 8,849,018 B2 (US). Sept. 2014.

[Patent Applications](#)

- [PA1] R. Craig Coulter, Ralph Gross, Jean-François Lalonde, and Barbara Simard. “Robotic management of patient care logistics”. Patent Application 12/791,208 (US). 2010.
- [PA2] R. Craig Coulter, Ralph Gross, Jean-François Lalonde, and Barbara Simard. “System and method of patient flow and treatment management”. Patent Application 20110054946 (US). 2009.

HONORS AND RECOGNITIONS

- 2017 Outstanding Reviewer Award, CVPR 2017
- 2017 Best Professor Award, IEEE student branch
- 2015 Best Paper (Runner Up) Award, 3DV 2015
- 2015 Star Professor Award, School of Science and Engineering
- 2015 Outstanding Reviewer Award, CVPR 2015
- 2014 Outstanding Reviewer Award, CVPR 2014
- 2011 CMU School of Computer Science Distinguished Dissertation Award
- 2009–2011 Microsoft Research Ph.D. Fellowship
- 2006–2009 Ph.D. Scholarship, Fonds de Recherche sur la Nature et les Technologies (FQRNT)
- 2004–2006 M.S. Scholarship, Fonds de Recherche sur la Nature et les Technologies (FQRNT)

FUNDING

- 2017–2021 **Canada First Research Excellence Fund (Sentinel North)**, “Optimisation of biophilia in extreme climates through architecture”, Co-PI (PIs: Claude Demers (architecture) and Marc Hébert (medicine)).
\$317,281 / 4 years
- 2017 **NSERC ENGAGE EGP 505674-16**, “Surface Reflectance Acquisition for Finished Materials”, with Arcane Technologies.
\$24,995 / 6 months
- 2017 **Research contract**, “High Resolution, High Dynamic Range Panorama Capture”, Adobe Systems.
\$33,500 / 6 months
- 2016–2017 **Unrestricted gift for research activities**, Adobe Systems.
\$72,000 (\$58,500 USD), unlimited duration
- 2016–2019 **Research grant**, “Automated method for replacing real-world objects present in a monocular video with a virtual object”, Institut National d’Optique.
\$60,000 / 4 years
- 2016 **Research grant**, “Change detection with autonomous mobile robots”, Umanx.
\$9,000 / 4 months
- 2016 **Nvidia Hardware grant**, donation of a Titan X Pascal GPU.
- 2016 **Educational innovation grant**, “Educational Tool for Teaching the Internal Structure of Computers”, Université Laval.
\$4,601.25 / 6 months
- 2016 **MITACS Accelerate IT06791**, “Improving Interactivity in Augmented Reality for Video Games Applications”, with Frima Studio.
\$15,000 / 4 months
- 2016 **NSERC ENGAGE EGP 491144-15**, “Precise and Robust Extraction of Physical Measurements by Processing Images Acquired by a Mobile Platform”, PI: Sylvie Daniel (U. Laval), with Bulldozer.
\$24,334 / 6 months
- 2015–2016 **NSERC ENGAGE EGP 485663-15**, “Monocular Face Reconstruction for Virtual Try-on Applications”, with Mentum.
\$24,994 / 6 months

- 2015 **Nvidia Hardware grant**, donation of a Tesla K40 GPU.
- 2015–2017 **FRQ-NT New Researcher Grant 2016NC189939**, “Outdoor Photometric Stereo Under Unknown Illumination”.
\$40,000 / 2 years, with an additional \$25,829 for equipment
- 2014–2019 **NSERC Discovery Grant RGPIN-2014-05314**, “Bringing Images to Light”.
\$185,000 / 5 years

TALKS

Tutorials

- 09/2016 “Computational Photography Tutorial”, International Conference on Image Processing, Phoenix, USA
- 09/2015 “Computational Photography Tutorial”, International Conference on Image Processing, Quebec City, Canada

Research seminar talks

- 06/2017 “Object Detection and Deep Learning”, Umanx, Québec, Canada
- 05/2017 “Deep Learning and 3D”, Creafom Tech Lunches, Québec, Canada
- 05/2017 “Learning to Predict Illumination from a Single Image”, Montreal Institute for Learning Algorithms, Montreal, Canada
- 05/2017 “Opportunistic Lighting and Augmented Reality”, Thalès, Québec, Canada
- 11/2016 “Special Effects in Photographs”, Kyoto University, Kyoto, Japan
- 11/2016 “Modeling Outdoor Illumination”, Kyoto University, Kyoto, Japan
- 11/2015 “Data-driven Modeling of Outdoor Illumination”, University College, London, UK
- 10/2015 “Data-driven Modeling of Outdoor Illumination”, McGill University, Montreal, Canada
- 10/2015 “Computational Photography Overview”, Algolux, Montreal, Canada
- 06/2015 “Richer Models for Outdoor Lighting”, Computer and Robot Vision Conference, Halifax, Canada
- 03/2015 “Richer Models for Outdoor Lighting Synthesis and Understanding”, Uber Advanced Technology Center, Pittsburgh, USA
- 05/2014 “Special Effects in your Photos”, REPARTI workshop, Québec, Canada
- 03/2014 “Daylight and Material Estimation from Photo Collections”, REPARTI Seminar, Université Laval
- 11/2013 “Point-and-shoot Sky Probes”, REPARTI Seminar, Université Laval
- 11/2012 “Understanding Illumination in Natural Images”, SCS Distinguished Dissertation Award Lecture, Pittsburgh, USA
- 09/2012 “Understanding Illumination in Natural Images”, National Robotics Engineering Consortium, Pittsburgh, USA
- 04/2012 “Understanding and Recreating Visual Appearance in a Single Outdoor Photograph”, Disney Research Pittsburgh, USA
- 01/2011 “Understanding and Recreating Visual Appearance Under Natural Illumination”, Carnegie Mellon University
- 10/2010 “Estimating Illumination Conditions from a Single Outdoor Image”, Université Laval, Québec, Canada

- 08/2010 “Understanding and Recreating Visual Appearance under Natural Illumination”, Tandent Vision Science, Pittsburgh, USA
- 11/2008 “What Does the Sky Tell Us About the Camera?”, VASC Seminar, Carnegie Mellon University
- 06/2008 “Capturing the Illumination of a Scene: 2 Data-driven Approaches”, Université Laval, Québec, Canada

Scientific conference talks

- 11/2015 “HDR Image Noise Estimation for Denoising Tone Mapped Images”, Conference on Visual Media and Production, London, UK
- 04/2015 “Contrast Use Metrics for Tone Mapping Images”, International Conference on Computational Photography, Houston, TX, USA
- 05/2010 “Webcam Clip Art”, FMX, Stuttgart, Germany
- 12/2009 “Webcam Clip Art”, ACM SIGGRAPH Asia, Yokohama, Japan
- 10/2009 “Estimating Natural Illumination from a Single Outdoor Image”, ICCV, Kyoto, Japan
- 08/2007 “Photo Clip Art”, ACM SIGGRAPH, San Diego, CA, USA
- 08/2006 “Mobile Robot Programming in Education”, ICRA, Orlando, FL, USA
- 06/2005 “Data Structure for Efficient Processing in 3-D”, RSS, Boston, MA, USA
- 06/2005 “Scale Selection for Classification of Point-sampled 3-D Surfaces”, 3DIM, Ottawa, Canada

General public presentations

- 08/2017 “Programme d’appui à l’innovation pédagogique”, Faculté des Sciences et de Génie, Université Laval
- 04/2016 “Éclairage d’objets virtuels 3D : approches et perspectives”, Journées Aux Frontières du Numérique, ITIS, Québec, Canada
- 11/2015 “Repousser les Limites de la Création 3D: Des Effets Spéciaux dans vos Photos”, École de Design, Québec, Canada
- 10/2015 “Repousser les Limites de la Création 3D: Lumières, Météo, et Objets Virtuels”, Radio interview, CKRL radio station, Québec, Canada
- 10/2015 “Repousser les Limites de la Création 3D: Lumières, Météo, et Objets Virtuels”, ITIS, Québec, Canada
- 08/2014 “An Account of Life as a Young Faculty Member”, Université Laval

TEACHING EXPERIENCE

Université Laval

- 2014–2017 Computational photography
- 2015–2017 Introduction to computer architecture

Carnegie Mellon University

2008–2012 Computational photography (guest lecturer, 4 lectures)

2010 Computer vision (guest lecturer)

2008–2010 Computer graphics (guest lecturer)

Teaching assistantships

2007 Learning-based methods in vision, Carnegie Mellon University

2003–2004 C++ programming on Linux, Université Laval *Best Teaching Assistant Award*

SERVICE

2017 Publication chair, IEEE International Conference on Computational Photography 2018

2017 Committee president (NC04), “Établissement de nouveaux chercheurs”, FRQ-NT

2017 Committee member (05B), “M.S. scholarship program”, FRQ-NT

2017–2018 Local arrangement chair, Canadian Conf. on Electrical and Computer Eng. 2018

2016–2017 Area chair: International Conference on 3D Vision (2016–2017), Pacific Conference on Computer Graphics and Applications (2017)

2015–2016 Ambassador to the city of Quebec, project `1000raisons.quebec`. Program launched by Quebec’s Work Minister, Mr. Sam Hamad, with the goal of attracting international talent to Quebec City.

2015 Program committee member, Technical Briefs and Posters, SIGGRAPH Asia 2015

04/2012 Panelist, Quality of Life Technology Industry Panel, Carnegie Mellon University

2008–... Journal reviewer: IEEE TPAMI (2011–2014), IJCV (2010–2013), ACM TOG (2008–2017), IEEE TIP (2012–2014), JVBR (2009–2010), CGF (2008–2014), CVIU (2012–14)

2010–... Program committee reviewer: CVPR (2011–2017), ECCV (2010–2016), ICCV (2011–2017), ICCP (2014–2017)

2008–... External reviewer: RSS (2011), CVPR (2008–2010), ICPR (2010), ICCP (2008), ICRA (2007–2012), ICIP (2012–2014)

2009–2010 Graduate admissions committee, Robotics Institute, Carnegie Mellon University

MEDIA COVERAGE

10/09/2015 “Québec lance une campagne pour attirer des travailleurs”, Radio-Canada

10/09/2015 “70 000 emplois à pourvoir d’ici 3 ans à Québec”, Journal de Montréal

10/09/2015 “Campagne de promotion pour inciter les talents à revenir à Québec”, Le Soleil

10/08/2015 “Du 3D plus vraisemblable que jamais”, Fil des Événements

10/05/2015 Interview at CKRL, Quebec radio station

09/2015 “La 3D presque à portée de main”, Le magazine Contact

05/30/2015 “Un projet pour rapatrier les talents québécois de l’étranger”, Le Soleil

02/19/2015 “Pousser les limites de la création 3D”, Fil des Événements

01/31/2015 “Le Ciel de Québec inspire Disney”, Journal de Québec

01/26/2015 “Disney Research: La magie de l’image”, Impact Campus

04/15/2008 “Photo Clip Art”, CGWorld (Japan)

09/19/2007 “Instant makeup: perfect your holiday snaps”, The Independent (UK)

- 08/08/2007 “Photo tool could fix bad images”, BBC News (UK)
- 07/11/2007 “Researchers try Google approach to understanding photos”, News.com (USA)
- 07/11/2007 “Researchers try Google photo tactic”, USAToday (USA)
- 07/19/2007 “Le photomontage pour les nuls”, News.fr (France)
- 07/15/2007 C’t—Magazin für Computertechnik (Germany)

SUPERVISION

I currently supervise 6 Ph.D. students, 1 M.S. student, and 2 post-docs. Over the past 3 years, I have graduated 1 M.S. student, and have supervised 6 graduate research interns, 14 undergraduate research interns, and 4 research professionals.

Current Ph.D. Students

- 2017–... **Mojtaba Parsaee**, *Sentinel North Ph.D. scholarship*, co-supervised with Claude Demers (architecture) and Marc Hébert (medicine).
- 2017–... **Mathieu Garon**, co-supervised with Denis Laurendeau (ECE), in collaboration with Creaform.
- 2016–... **Henrique Weber**, *INO excellence scholarship*, co-supervised with Donald Prévost (Institut National d’Optique).
Thesis: “Object Replacement in Indoor Video Sequences”
- 2016–... **Jinsong Zhang**.
Thesis: “Data-driven HDR Illumination from Outdoor Images”
- 2014–... **Yannick Hold-Geoffroy**, *FRQ-NT Ph.D. Scholarship*, co-supervised with Paulo Gotardo (Disney Research Zurich).
Thesis: “Understanding Outdoor Photometric Stereo”
- 2014–... **Marc-André Gardner**, *Alexander Graham Bell Canada Graduate Scholarship*, co-supervised with Christian Gagné (ECE).
Thesis: “Semantics in Deep Neural Networks”

Current M.S. Students

- 2014–... **Félix Labrie-Larrivée**, co-supervised with Denis Laurendeau (ECE), in collaboration with Creaform.
Thesis: “Depth Texture Synthesis for Realistic Architectural Modeling”

Current Post-Doctoral Researchers

- 2017–... **Filippo Ferrario**, *Sentinel North Post-doc scholarship*, co-supervised with Philippe Archambault (biology), Philippe Giguère (CS), Sylvie Daniel (geomatics), and Patrick Lajeunesse (forestry).
Project: “Flexible Imaging Device: packaging an optic-based citizen science solution for mapping habitats in coastal areas”
- 2016–... **Fahim Mannan**, co-supervised with Derek Nowrouzezahrai (McGill), in collaboration with Algolux.
Project: “Learning to improve camera ISPs”

Graduated M.S. Students

- 2015–2016 **Mathieu Garon**, *Mitacs Accelerate Internship*, in collab. with Frima Studio.
Thesis: “Deep 6-DOF Tracking”
- 2014–2016 **Sébastien Michaud**, last seen at Can-Explore.
Thesis: “Influence of Complex Environments on LiDAR-Based Robot Navigation”

Graduate research interns

- 2014–... **Dan Calian**, University College London (UK), project in collaboration with Disney Research.
- 2014 **Jinsong Zhang**, Beihang University (China).
now Ph.D. student in my group
- 2014 **Mert Kiliçkaya, Hacettepe U. (Turkey)**, *REPARTI International Internship*.
now Ph.D. student at University of Amsterdam
- 2014–2015 **Minghui Tan**, Yale (USA), project in collaboration with Disney Research, LA.
last seen at Google
- 2013–2015 **Miguel Granados**, Max Planck Institute (Germany), project in collaboration with Disney Research, Pittsburgh.
last seen at Magic Leap
- 2013 **Natasha Kholgade Banerjee**, CMU (USA), project in collaboration with Disney Research, Pittsburgh.
now Assistant Professor at Clarkson U.

Undergraduate research interns

- 2017–... **Marie-Joëlle Gosselin**, *NSERC Undergraduate Research Award*, ECE undergraduate.
- 2017 **Aditya Shekhar**, *MITACS Globalink International Scholarship*, ECE undergraduate, IIT Guwahati, India.
- 2016–2017 **Pierre-Olivier Boulet**, CS undergraduate.
- 2016–2017 **Dominic Bilodeau**, ECE undergraduate, project in collaboration with University of Kyoto.
- 2016 **Charles-Olivier Dufresne Camaro**, *NSERC Undergraduate Research Award*, ECE undergraduate, project in collaboration with Umanx.
- 2015–2016 **Louis-Philippe Asselin**, *Faculty of Science and Engineering Research Fellowship*, ECE undergraduate.
- 2015–2016 **Frédéric St-Pierre**, *NSERC Undergraduate Research Award 2015–16*, ECE undergraduate.
- 2014–2016 **Louis-Émile Robitaille**, ECE undergraduate.
- 2014–2015 **Mathieu Garon**, ECE undergraduate (now graduated).
now Ph.D. student in my group
- 2015 **Julien Becirovski**, ECE undergraduate.
- 2014–2015 **Diane Fournier**, ECE undergraduate (now graduated).
last seen at Optel Vision
- 2014 **Michael Monette**, Physical eng. undergraduate (now graduated).
last seen at EXFO
- 2008 **Joseph Rollo**, CS undergraduate (now graduated).
last seen at General Dynamics
- 2007 **Nicholas Heckman**, CS undergraduate (now graduated).
last seen at Microsoft

Research professionals

- 2016–... **Maxime Tremblay**, Computer Vision and Systems Lab, supervision of 50% of his time during 2 periods of 6 months.

- 2017 **Thierry Moszkowicz**, Computer Vision and Systems Lab, supervision of 40% of his time during 6 months.
- 2016 **Benoit Duinat**, Geomatics Lab, supervision of 30% of his time during 4 months, in collaboration with Sylvie Daniel.
- 2016 **Oleg Boulanov**, Computer Vision and Systems Lab, supervision of 50% of his time during 6 months.

PROFESSIONAL EXPERIENCE

- 2013–2016 **Research Consultant**, *Disney Research*, Pittsburgh, USA.
Part-time consultant.
- 2011–2012 **Computer Vision Scientist**, *Tandent Vision Science Inc.*, Pittsburgh, USA.
Full-time researcher.
- 2006 **Software Engineer**, *Penthera Technologies Inc.*, Pittsburgh, USA.
Full-time software engineer.

LANGUAGES

- French Native
English Excellent
Spanish Conversational

PROFESSIONAL AFFILIATIONS

- 2014–... **Ordre des Ingénieurs du Québec**