

## Work Experience

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- 2021-Present **Co-founder**, Depix Technologies Inc. Quebec, Canada
  - R&D non-dilutive founding (Over 1M\$ CAD raised)
  - Build a highly skilled team of 8 (engineers, researcher, product specialists);
  - Connect university researchers and oversee research projects (ECCV paper, 4 patents);
  - Help the team integrate state of the art generative model and LLM into solutions;
  - Help the team bring web rendering engines in production (ThreeJS, React, Typescript).
- 2015 **Computer vision R&D developer**, Frima Studio Inc. Quebec, Canada

## Research Experience

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- 2019-2020 **Research intern**, Facebook Reality Lab, Seattle, Washington
- 2018 **Research intern**, Adobe Systems, San-Jose, California (3 patents, CVPR oral)
- 2015-2020 **Graduate research assistant**, Computer Vision and Systems Lab, Laval University
- 2014-2015 **Undergraduate research assistant**, Computer Vision and Systems Lab, Laval University

## Patents

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- **U.S. 10,692,277** Dynamically estimating lighting parameters for positions within augmented-reality scenes using a neural network.
- **U.S. 10,665,011** Dynamically estimating lighting parameters for positions within augmented-reality scenes based on global and local features.
- **U.S. 11,158,117** Estimating lighting parameters for positions within augmented-reality scenes.
- **PCT/CA2022/051479** Systems and methods for compositing a virtual object in a digital image.
- **US 18,196,887** Systems and methods for rendering virtual objects using editable light-source parameter estimation.

## Education

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- 2017-2021 **Ph.D. Electrical Engineering**, Laval University, Thesis: *Data-driven 3D reasoning for augmented reality*
- 2015-2017 **M.Sc. Electrical Engineering**, Laval University
- 2011-2015 **B.S. Computer Engineering**, Laval University

## Publications

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### Refereed Conference Papers.....

1. Zhang, Z., Fortier-Chouinard, F., Garon, M., Bhattad, A. & Lalonde, J.-F. *Zerocomp: zero-shot object compositing from image intrinsics via diffusion* in *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision* (2024).
2. Weber, H., Garon, M. & Lalonde, J.-F. *Editable indoor lighting estimation* in *European Conference on Computer Vision (ECCV)* (2022), 677–692.
3. Mercier, J.-P., Garon, M., Giguere, P. & Lalonde, J.-F. *Deep template-based object instance detection* in *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision* (2021), 1507–1516.
4. Dubeau, E., Garon, M., Debaque, B., de Charette, R. & Lalonde, J.-F. *Rgb-de: event camera calibration for fast 6-dof object tracking* in *2020 IEEE International Symposium on Mixed and Augmented Reality (ISMAR)* (2020), 127–135.

5. De Blois, S., Garon, M., Gagné, C. & Lalonde, J.-F. *Input dropout for spatially aligned modalities* in *2020 IEEE International Conference on Image Processing (ICIP)* (2020), 733–737.
6. Garon, M., Sunkavalli, K., Hadap, S., Carr, N. & Lalonde, J.-F. *Fast spatially-varying indoor lighting estimation* in *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)* (2019), 6908–6917.
7. Garon, M., Laurendeau, D. & Lalonde, J.-F. *A framework for evaluating 6-dof object trackers* in *European Conference on Computer Vision (ECCV)* (Sept. 2018).
8. Garon, M., Boulet, P. O., Doironz, J. P., Beaulieu, L. & Lalonde, J. F. *Real-time high resolution 3D data on the hololens* in *2016 IEEE International Symposium on Mixed and Augmented Reality (ISMAR-Adjunct)* (Sept. 2016), 189–191.

#### Refereed Journal Articles

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9. Garon, M. & Lalonde, J. F. Deep 6-DOF tracking. *IEEE Transactions on Visualization and Computer Graphics* **23**, 2410–2418 (Nov. 2017).

#### Teaching Experience

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- 2017-2020 **Teaching assistant**, Real-time Embedded Systems, Laval University
- 2019-2020 **Teaching assistant**, Computational Photography, Laval University
- 2019 **Teaching assistant**, Machine Learning, Laval University

#### Academic Projects

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- 2012-2015 **Founder and technical director of Robocup ULaval**, Small size league team, Laval University
- 2015 **Embedded systems trainer of Robocup Academy**, Student to Student teaching platform, Laval University

#### Languages

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French(Native) English(Fluent)

#### Community Involvement

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- **Plein Air Sutton** Bike trail building helper
- **Parc d'environnement naturel de Sutton** Hike trail building helper

#### Interests

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Mountain sports (Ski, Mountain bike) - River Surf - Cooking/Home-brewing