

# Akshaya Athwale

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## RESEARCH INTEREST

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Geometrical deep learning, Vision Transformer, Wide Angle Images, Computer Vision

## PUBLICATIONS

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- **A. Athwale, O. Ahmad, J.-F. Lalonde:**
  - “Network-agnostic distortion-invariant projections for wide-angle image understanding”. **Under review.**
- **A. Athwale, I. Shili, Émile Bergeron, O. Ahmad, J.-F. Lalonde:**
  - “DarSwin-Unet: Distortion Aware Encoder-Decoder Architecture”. **IEEE Winter Conference on Applications of Computer Vision (WACV) 2025.**
- **A. Athwale, A. Afrasiyabi, J. Lague, I. Shili, O. Ahmad, J.-F. Lalonde:**
  - “DarSwin: Distortion Aware Radial Swin Transformer”. In **IEEE International Conference on Computer Vision, ICCV 2023.**
- **S. Sengupta, A. Athwale, T. Gulati, V. Lakshminarayanan:**
  - “FunSyn-Net: Enhanced Residual Variational Auto-encoder and Image-to-Image Translation Network for Fundus Image Synthesis”. in **SPIE Medical Imaging Conference 2020.**
- **Y. Hold-Geoffroy, A. Athwale, J.-F. Lalonde:**
  - “Deep Sky Modeling for Single Image Outdoor Lighting Estimation”. In **IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2019.**

## EDUCATION

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- **Université Laval** Quebec, Canada  
*Doctorate Candidate* 2021 - Present
- **Aalto University** Espoo, Finland  
*Research Assistant/Project Employee* 2020 - 2021
- **Indian Institute of Technology (IIT-ISM) Dhanbad** Dhanbad, India  
*Integrated Master of Technology in Mathematics and Computing GPA: 8.85/10.0* 2015 - 2020

## RESEARCH EXPERIENCE

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- **Research intern, Thales digital solution** Montréal, Canada  
*Supervised By : Ola Ahmad, June'23 - October'23*
- **Graduate Research Assistant, Université Laval** Quebec City, Canada  
*Supervised By : Prof. Jean-Francois Lalonde and Ola Ahmad, August'21 - Present*
- **Research Assistant/Project Employee, Aalto University** Espoo, Finland  
*Supervised By : Prof. Alexander Ilin, May'20 - August'21*
- **Research Internship, University of Waterloo** Waterloo, Canada  
*Supervised By : Prof. Vasudevan Lakshminarayanan, May'19 - July'19*
- **Mitacs Globalink Research Internship, University Laval** Quebec City, Canada  
*Supervised By : Prof. Jean-Francois Lalonde, May'18 - December'18*

## REFERENCES

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- **Prof. J. F. Lalonde:** Professor, Department of Electrical and Computer Engineering, University Laval, jflalonde@gel.ulaval.ca
- **Ola Ahmad:** Chief AI Scientist at Thales Canada, ola.ahmad@thalesdigital.io
- **Prof. Alexander Ilin:** Professor, Computer Engineering, Aalto University, +358415014497, alexander.ilin@aalto.fi
- **Prof. Vasudevan Lakshminarayanan:** Professor, Electrical and Computer Engineering, University of Waterloo, vengulak@uwaterloo.ca
- **Deekshith Marla:** Founder & CTO (Featured in Forbes 30 Under 30), Lithasa Technology, Arya.ai, deekshith@arya.ai