D. Khuê Lê-Huu

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Education

2014–present **PhD in Applied Mathematics and Computer Science**, *CentraleSupélec*, France.
Thesis: Nonconvex Optmization for Graphs in Computer Vision.
Advisor: Prof. Nikos Paragios.

2013–2014 **MSc in Applied Mathematics: Vision and Learning**, *CentraleSupélec & École Normale Supérieure Paris-Saclay*, France.
With highest honors ("mention très bien").

2011–2012 **MSc in Computer Science**, *École Polytechnique de Tours*, France.

2007–2012 **Engineer's Degree**, *INSA Centre Val de Loire*, France.
Major: Automated Systems, Instrumentations and Industrial Computing.

2004–2007 **Specialized Class in Mathematics**, *Quôc–Hoc Huê High School*, Vietnam.

Publications

[1] D. Khuê Lê-Huu and Nikos Paragios. Continuous Relaxation of MAP Inference: A Nonconvex Perspective. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018.

[2] D. Khuê Lê-Huu, Minh Hoai Nguyen, Dimitris Samaras and Nikos Paragios. Dealing with Large Transformations in Data Augmentation for Neural Networks. *In preparation*, 2018.

[3] D. Khuê Lê-Huu and Nikos Paragios. Alternating Direction Graph Matching. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2017.

[4] D. Khuê Lê-Huu and Nikos Paragios. Dual Decomposition with Accelerated First-Order Scheme for Discrete Markov Random Field Optimization. *Technical report*, 2014.

[5] D. Khuê Lê-Huu, Fareed Ahmed, Julien Olivier, Romuald Boné. An active contour model with improved shape priors using Fourier descriptors. In *Proceedings of the International Conference on Computer Vision Theory and Applications (VISAPP)*, 2013.

Skills

Programming C, C++, Python, Matlab, Java, VBA, LabVIEW.

Libraries Eigen, OpenCV, Qt, PyTorch, OpenGM, CVX, VLFeat, IMAGINE++.

Languages Vietnamese (native), English (fluent), French (fluent).

Others LaTeX, Web Design and Administration (CSS, HTML, Joomla!, Wordpress, phpBB).

Work Experience

07– 09/2017 **Visiting Researcher**, *Computer Vision Laboratory*, Stony Brook University, USA.
● *Project:* Training Neural Networks with Noisy Data: A Multiobjective Optmization Perspective. ● *Supervisors:* Prof. Minh Hoai Nguyen and Prof. Dimitris Samaras.

04– 09/2014 **MSc Internship in Applied Mathematics**, *Center for Visual Computing*, Centrale-Supélec, France.
● *Project:* Dual Decomposition with Accelerated First-Order Scheme for Discrete Markov Random Field Optimization. ● *Advisor:* Prof. Nikos Paragios.

03–08/2012 **MSc Internship in Computer Science**, *Pattern Recognition and Image Analysis Group*, Computer Science Lab, Tours University, France.
● *Project:* An Active Contour Model with Improved Shape Priors using Fourier Descriptors. ● *Advisors:* Prof. Romuald Boné and Prof. Julien Olivier.

04–08/2011 **Internship in Computational Fluid Dynamics**, *Center for Innovation through Visualization and Simulation*, Purdue University Northwest, USA.
● *Project:* Modeling of An Internal Floating Roof Tank. ● *Advisor:* Prof. Chenn Q. Zhou.

06–08/2010 **Internship in Acoustics and Materials**, *GREMAN Lab*, CNRS, France.
● *Project:* An Implementation of Nonlinear Elastic Wave Spectroscopy Techniques to Discern Material Damage. ● *Advisors:* Prof. Marc Lethiecq and Prof. Jérôme Fortineau.

Teaching Experience

I have been a teaching assistant and/or a guest lecturer for the following MSc programs of CentraleSupélec.

MSc in Data Sciences & Business Analytics

2017–2018 **Applied Mathematics** (including Machine Learning, Statistics, Continuous and Discrete Optimization).

MSc in Applied Mathematics: Vision and Learning

2017–2018 **Discrete Inference and Learning**.
2016–2017 **Introduction to Deep Learning**.
2015–2016 **Machine Learning for Computer Vision**.
2014–2015 **Machine Learning for Computer Vision**.

Honors & Awards

2008–2011 Vallet Scholarship for Excellent Vietnamese Students in France.
2007 Honorable Mention (top 40), Vietnam Mathematical Olympiad.
2007 First Prize (ranked 1st), Mathematical Olympiad of Thua Thiên – Huê province, Vietnam.
2006 Silver Medal, Mathematical Olympiad for High School Students of the Center and the South, Vietnam.

Interests

Sports   I love playing and watching football. I played for CentraleSupélec's football team in the French university championship. I also like chess, table tennis and swimming.

Community   I am an administrator of the biggest online mathematical community of Vietnam – the Vietnam Mathematics Forum (`diendantoanhoc.net`). I also spend my free time answering questions on Math StackExchange website, mostly on Olympiad Inequalities.

Reference

Nikos Paragios
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