Minh Hai NGUYEN

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I am a PhD student in MAMBO team at Université de Toulouse (expected graduation: December 2026), advised by Prof. Pierre Weiss and Prof. Edouard Pauwels. My research focuses on inverse problems in imaging with applications to microscopy.

EDUCATION

PhD in Applied Mathematics   2023 -
Toulouse University, France
Advised by Prof. Pierre Weiss and Prof. Edouard Pauwels
Research topics: Inverse Problems in Imaging, applications to Microscopy

Master of Engineering in Applied Mathematics   2018 - 2023
INSA Toulouse, France
Major in AI / Data Science
(*Location: 2018-2020 in Vietnam and 2020-2023 in France)

EXPERIENCE

Research Engineer   Dec. 2022 - Sept. 2023
Agenium Space
Correcting micro-vibrations in satellite imaging with pushbroom cameras.

Research Intern   Jun. 2022 - Sept. 2022
Institut Mathématiques de Toulouse
Product-convolution neural networks: applications to image deblurring with space-varying blurs.

PUBLICATIONS

[1]   M. H. Nguyen, F. de Vieilleville, and P. Weiss. "DeepVibes: Correcting Microvibrations in Satellite Imaging With Pushbroom Cameras". In: *IEEE Transactions on Geoscience and Remote Sensing* 62 (2024), pp. 1–9.

LANGUAGE

English: fluent   **French:** fluent   **Vietnamese:** native

PROGRAMMING LANGUAGE

Python (advanced): PyTorch (DDP, AMP)   **C/C++ (intermediate)**

OTHER SERVICES

Open source project
DeepInverse: Github Repository

PyTorch library for solving imaging inverse problems using deep learning

Teaching

- Signal Processing (1st Master level) at INSA Toulouse, in 2024.

- Stochastic Optimization and Learning (1st Master level) at INSA Toulouse / ENSEEIHT, in 2024.