

Fabien Delattre

PhD candidate in Computer Vision

📍 Amherst, MA ✉ fdelattre@umass.edu 🌐 fabiendelattre.com in fabien-delattre

Summary

Available for a role starting in May 2026. I am a PhD candidate in Computer Vision with a focus on 3D geometry and multi-view geometry. I also have extensive internship experience in computer vision and machine learning, including work on the monocular-to-stereo post-production pipeline at Disney Research Studios, multi-view temporal video alignment at Dolby Laboratories, camera motion estimation at Mitsubishi Electric Research Laboratories, and super-resolution models for video conferencing at Samsung. Previously, I co-founded a web development agency where I led projects end-to-end, from requirements to deployment.

Education

University of Massachusetts Amherst

PhD in Computer Science · GPA: 4.0/4.0

Computer Vision Research Laboratory, Advisor: Prof. Erik Learned-Miller

Amherst, MA

Sept 2020 – (May 2026)

MS in Computer Science · GPA: 4.0/4.0

Relevant coursework: Computer Vision, Neurodynamics, Reinforcement Learning, Neural Networks, Artificial Intelligence, Distributed and Operating Systems

Sept 2019 – May 2020

ISEN, School of Engineering

Diplôme d'Ingénieur (MS in Engineering), Computer Science

Relevant coursework: Artificial Intelligence, Big Data, Linear Algebra, Data Structures, Advanced Algorithms

Lille, France

Sept 2014 – May 2019

Research Experience

Computer Vision Intern

Disney Research Studios

Developed monocular-to-stereo conversion components for the post-production pipeline, enabling 2D films to be delivered in 3D.

Zürich, Switzerland

June 2025 - Sept 2025

Research Intern

Dolby Laboratories

Developed a method to temporally align videos captured from moving cameras across arbitrary viewpoints.

Hosted by Dr. Tsung-Wei Huang. Accepted at WACV 2026.

Sunnyvale, CA

May 2024 - Aug 2024

Research Intern

Mitsubishi Electric Research Laboratories

Worked on camera motion estimation and calibration.

Hosted by Dr. Pedro Miraldo.

Cambridge, MA

May 2023 - Aug 2023

Research Intern

Mitsubishi Electric Research Laboratories

Developed a method to robustly estimate the camera rotation in the presence of moving objects.

Hosted by Dr. Michael Jones. Accepted at ICCV 2023.

Cambridge, MA

May 2022 - Aug 2022

Research Assistant

University of Massachusetts Amherst

Built an event-camera based reinforcement learning system for visual balancing.

Worked on self-supervised representation learning, object detection, and distribution modeling for scene-centric videos as part of the DARPA L2M program.

Published in Neural Networks (2023).

Amherst, MA

Jan 2026 - Apr 2026

Aug 2019 - Dec 2019

Machine Learning Applied Research Intern

Samsung Strategy and Innovation Center

Developed GAN-based image enhancement models for video conferencing, including super-resolution, background removal, and reflection removal.

Paris, France

May 2019 - Aug 2019

Machine Learning Intern

Thales

Developed machine learning models for classification and clustering of aircraft trajectories for Air Traffic Management.

Rungis, France

May 2018 - Aug 2018

Publications and Preprints

Human Pose Aggregation for Multi-View Temporal Video Alignment

Fabien Delattre, Tsung-Wei Huang, Guan-Ming Su and Erik Learned-Miller.

2026 IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) (2026).

Robust Frame-to-Frame Camera Rotation Estimation in Crowded Scenes

Fabien Delattre, David Dirnfeld, Pha Nguyen, Stephen Scarano, Michael J. Jones, Pedro Miraldo and Erik G. Learned-Miller.

2023 IEEE/CVF International Conference on Computer Vision (ICCV) (2023): 9718-9728.

C-14: assured timestamps for drone videos

Zhipeng Tang, **Fabien Delattre**, Pia Bideau, Mark D. Corner and Erik G. Learned-Miller.

Proceedings of the 26th Annual International Conference on Mobile Computing and Networking (2020): n. pag.

FLIGHT: Fibonacci Lattice-based Inference for Geometric Heading in real-Time

David Dirnfeld, **Fabien Delattre**, Pedro Miraldo and Erik G. Learned-Miller.

ArXiv 2602.23115 (2026): n. pag.

RealBirdID: Benchmarking Bird Species Identification in the Era of MLLMs

Logan Lawrence, Oindrila Saha, Rangel Daroya, Mustafa Chasmai, Wuao Liu, Max Hamilton, Aaron Sun, Seoyun Jeong, **Fabien Delattre**, Subhransu Maji and Grant Van Horn.

2026 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) (2026)

A Domain-Agnostic Approach for Characterization of Lifelong Learning Systems

Megan M. Baker, Alexander New, Mario Aguilar-Simon, Ziad Al-Halah, Sébastien Arnold, Ese Ben-Iwhiwhu, Andrew Brna, Ethan Brooks, Ryan Brown, Zachary Alan Daniels, Anurag Reddy Daram, **Fabien Delattre**, et al.

Neural networks : the official journal of the International Neural Network Society 160 (2023): 274-296.

Self-supervised visual feature learning with curriculum

Vishal Keshav and **Fabien Delattre**.

ArXiv 2001.05634 (2020): n. pag.

Minimum commitment Loss for Semantic Segmentation with partial labels

Fabien Delattre and Vishnu Balakrishnan

fabien.delattre.com/mincommitment

Entrepreneurship and Software Engineering Experience

Co-founder & Full-stack developer

Liigem

Full-Stack developer on several client projects. Startup incubated at Euratechnologies and Village by CA; built a conversational appointment-scheduling agent.

Paris, France

Oct 2016 - Oct 2019

Web Developer

Self-employed

Web development and maintenance for companies and non-profits.

Saint-Cloud, France

Jan 2015 - Oct 2016

Teaching Experience

Teaching Assistant

Amherst, MA

University of Massachusetts Amherst

- CS670: Computer Vision (Graduate level), (*Spring 2024, Fall 2024*)
- CS574/674: Intelligent Visual Computing (Graduate level), (*Spring 2023*)
- CS250: Introduction to Computation, (*Fall 2020*)
- CS230: Computer systems principles, (*Spring 2021, Fall 2022*)

Mentor

Oct 2016 – Aug 2019

OpenClassrooms.com

Mentored students for training programs:

- Multimedia Project Manager
- Junior Web Developer
- Data Analyst

Fellowship

Thesis Proposal Writing Fellowship, Award: \$16k

Talks and Presentations

Mar 2024 - "Robust Camera Motion Estimation". Invited talk. MathWorks, Vision team, Natick, MA,

Dec 2022 - New England Computer Vision Workshop (NECV 2022). Selected presentation. MIT, Cambridge, MA.

Service to the Academic Community

Reviewer for the following conferences:

- Conference on Computer Vision and Pattern Recognition (CVPR): 2023, 2024, 2025, 2026
- European Conference on Computer Vision (ECCV): 2024

Skills

Languages

Python, C++, C

ML & CV

PyTorch, OpenCV, Scikit-learn, NumPy

Infra & Tools

Linux, Git, Slurm, AWS, Weights & Biases, MLflow, L^AT_EX

Additional

Full-stack Web (Vue.js, Laravel, Django, SQL)

Classically trained cellist (Certificat d'Études Musicales, France)