Kenta Vert

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Education

Thoth, Inria Grenoble, PhD in Computer Science – Grenoble, France — Sept 2025 – Today

- Thesis: *Foundation models for inverse problems in scientific imaging*, supervised by Julien Mairal and Michael Arbel (Thoth, Inria Grenoble)
- Funded by a competitive **AMX doctoral fellowship** (École Polytechnique)
- Research on generative priors (diffusion models) for imaging inverse problems, with a focus on Plug-and-Play optimization and the MMSE/MAP mismatch

PSL University, MSc in Artificial Intelligence, Systems, Data (IASD) – Paris, France — Sept 2024 – Sept 2025

- **Coursework:** Large Language Models, Image analysis, Reinforcement Learning, Mathematics of Machine Learning, Optimization for Machine Learning, Optimal transport, Data acquisition

École Polytechnique, MSc in Applied Mathematics (Cycle ingénieur) – Palaiseau, France — Sept 2021 – Sept 2025

Lycée Fénelon, Undergraduate degree (Classe prépa MPSI, MP*) – Paris, France — Sept 2019 – July 2021

Publications & Preprints

- **Beyond MMSE: Enhancing PnP Restoration with ProxiMAP**
  Kenta Vert*, Giacomo Meanti*, Scott Pesme, Michael Arbel, Julien Mairal *(*equal contribution)*
  Advances in Neural Information Processing Systems (NeurIPS), 2026. arXiv:2605.16396.

Professional Experiences

Research Intern, Inria Grenoble – Montbonnot, France — April 2025 – Aug 2025

- Master's thesis in the Thoth team, supervised by Julien Mairal and Michael Arbel
- Studied the MMSE/MAP mismatch in Plug-and-Play restoration; work continued into my PhD and the publication above

Research Intern, Okinawa Institute of Science and Technology – Onna, Japan — April 2024 – Aug 2024

- Research internship under the supervision of Makoto Yamada
- Multimodal generative models applied to 3D motion generation (text-to-motion)

Air Force Officer, ET 4/61 Béarn – Orléans, France — Nov 2021 – April 2022

- In charge of planning and monitoring transport missions of the French Air Force

Teaching & Outreach

Volunteer teacher, Co-FormER programme, Université Grenoble Alpes – Grenoble, France — Nov 2025 – Feb 2026

Teaching assistant, Lycée Fénelon – Paris, France — Sept 2022 – June 2023

Research Projects

Applying Machine Learning to Weather Forecasting, École Polytechnique — Sept 2023 – March 2024

- Experimented and compared various classification models (logistic regression, random forest, XGB, LSTM, CNN) to predict rainfall (supervised by Julien Chiquet)

Talks

Beyond MMSE for Plug-and-Play image restoration, Thoth workshop – Autrans, France — March 2026

Presentation of Master's thesis, Thoth team seminar – Grenoble, France — Sept 2025

Skills

- **Languages :** **French** (native), **English** (fluent, 112/120 TOEFL), **Japanese** (fluent, JLPT N2), **Spanish** (intermediate)
- **Computing skills :** Python (PyTorch, TensorFlow, cuda, NumPy/SciPy), Java, C++, SQL, Git, LaTeX, HPC/SLURM clusters