



Scientific & Data Advisory for Medical Imaging R&D

I advise medical imaging AI teams on complex R&D questions, bringing scientific rigor to decisions around data, experimentation, and evaluation.

With a PhD in Computer Vision and over ten years of experience in applied medical imaging R&D, I combine actionable literature review with deep data understanding to help teams frame the right questions, design meaningful experiments, define robust evaluation strategies, and draw conclusions supported by the available evidence.



Technical Framing & Feasibility

Clarifying scientific questions, objectives, assumptions, and constraints to support sound R&D decisions.



Data Understanding & Qualification

Assessing what the available data can reliably support. Identifying limitations, biases, and sources of variability that may affect development and evaluation.



Experiment & Evaluation Strategy

Designing experiments & evaluation strategies so that results are interpretable, comparable, and aligned with the intended use.



Literature Review & Analysis

Turning the state of the art into actionable R&D insight: established evidence, uncertainties, and findings relevant to the question at hand.



Evidence & Decision Documentation

Documenting assumptions, evidence, and technical decisions so that the rationale remains traceable and defensible over time.



How I engage

I work with medical imaging AI teams through targeted engagements or ongoing advisory, depending on the question and level of support needed.

- **Targeted engagements** address a specific R&D question or decision, from literature and data assessment to experimental design and evaluation.
- **Ongoing advisory** provides regular scientific and data guidance as R&D questions evolve, helping teams challenge assumptions, review evidence, and make well-founded decisions over time.

What This Enables

- Evidence-based R&D decisions
- Stronger experimental and evaluation rigor
- Clearer understanding of data qualities and limitations
- More traceable technical reasoning

Case Studies

▸ Chest X-ray Dataset Qualification

Analysis of a large public dataset, demonstrating how data qualification, evaluation design, and technical strategy combine to surface hidden risks and inform R&D decisions before model development.

▸ CT metadata traceability – GammaMetric (USA)

Assessment of reconstruction metadata reliability as ground truth for CT image-based reconstruction classification.

About Vera Damerjian Pieters, PhD

PhD in Computer Vision

10+ years in applied medical imaging R&D

Expertise at the intersection of applied scientific research, data understanding, and real-world R&D

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