

Antoine Lucas

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Biostatistician & Data Scientist · Clinical R&D, DoE, mixed models

Pharma · Cosmetics · Biotech · Paris, France

Biostatistician and data scientist with 5+ years in clinical, cosmetic, and microbiome R&D. Statistical analysis plans, blind review, design of experiments, mixed models, and multivariate or multi-omics methods in R, with the software engineering to deliver them reproducibly (Git, tests, CI/CD, containers).

Experience

Data Scientist & ML Engineer

Sep 2025 – present

Chanel Parfums Beauté R&D · via Astek / IT&M Stats

- Delivered statistical modelling and machine learning for fragrance and cosmetics R&D, from exploratory analysis and model validation to deployment in researcher-facing tools.
- Designed and deployed object-segmentation models for cosmetics formulation and regulatory R&D.
- Maintain 20+ R Shiny applications in daily use by researchers, covering clinical data visualisation and formulation automation.

Data Scientist — Internal & Consulting

May – Sep 2025

Astek / IT&M Stats

- Led internal training on Bayesian statistics with R: modelling workflow, prior specification, and interpretation of results.
- Built reusable internal R packages and Quarto statistical reporting templates used across missions.
- Contributed statistical programming and review of planned analyses on internal biostatistics projects.

Data Scientist — Multi-omics

Dec 2024 – May 2025

Abolis · Microbiome Studio · via Astek / IT&M Stats

- Analysed large-scale multi-omics data (genomics, transcriptomics, metabolomics) end-to-end in R and Python, from quality control to biological interpretation.
- Contributed statistical design and analysis strategy in partner-facing discussions with agri-food companies.
- Sole data scientist in an 8-person startup team, delivering analyses and pipelines for a SaaS product.

Data Scientist

Jul 2023 – Nov 2024

Sanofi R&D · Manufacturing Chain · via Astek / IT&M Stats

- Built simulation and forecasting models in R and Python to predict manufacturing plant resource capacity across global sites, informing drug production planning.
- Owned delivery end-to-end as sole developer and Scrum Master — requirements, methodology, validation, workshops, UAT, handover.

Biostatistician

Nov 2021 – Jul 2023

L'Oréal R&I · Scientific Computing · via Astek / IT&M Stats

- Wrote statistical analysis plans and analysis methodologies for proof-of-concept clinical studies, programmed the analyses in R, and delivered reports for more than 100 studies.
- Supported blind-review meetings and clinical study reporting in a regulated R&D environment.
- Characterised clinical phenotypes with multi-block, multivariate, and variable-selection approaches on exposome, biophysical, omics, and microbiome data.

Earlier Experience

Data Scientist Intern — L'Oréal R&I · Augmented Beauty

Feb 2021 – Aug 2021

Personalised hair-recommendation models built from customer data.

Biostatistics Project Officer Intern — Da Volterra · Metagenomics Team

Feb 2020 – Aug 2020

Data management and non-parametric analysis of gut-microbiome clinical studies.

Data Scientist Intern — Flinders University · Digital Health Research Center

Sep 2019 – Jan 2020

Wearables and digital-health studies in R, from questionnaire design to results.

Education

Diplôme d'Ingénieur – Statistiques appliquées aux Sciences de la Vie (2021)

Institut Agro - Agrocampus Ouest, Rennes

Master — Mathématiques Appliquées · Statistiques (2021)

INSA Rennes · Agrocampus Ouest · Université Rennes 2 · ENSAI · ENSAE (joint programme)

Technical Skills

Statistics · DoE · mixed models · Bayesian optimisation · PLS · PERMANOVA · survival analysis · SPC
Programming · Python · R · SQL · Bash
Engineering · Git · CI/CD · automated testing · GxP · Clinical biostatistics · Multi-omics
Delivery · R Shiny (golem) · FastAPI · Quarto · ggplot2 · Plotly
ML & AI · scikit-learn · PyTorch · Hugging Face · PEFT / LoRA · OpenCV
MLOps & infra · Docker · GitHub Actions · Azure ML · Databricks · Posit Connect · uv · rv
LLM & agents · MCP servers · tool-calling agents · agentic workflows · LLM evaluation · RAG · structured extraction

Additional Information

Certifications

GitHub Foundations — GitHub (2024)

Scrum Master – Agilbee (2023)

Languages

French (native)

English (fluent, professional)