

Tristan Faure

AI, Data & Software Engineer - EPITA SCIA-G

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French & Bulgarian citizen - no EU sponsorship required · Available from March 2027 - internship (5-6 months) or full-time

EXPERIENCE

ML Research Project (PFEE) - Hodgkin Lymphoma 2026 - Present
[Hospices Civils de Lyon \(HCL Sud\) × EPITA - Lyon, France](#)
- End-of-studies research project (PFEE) with the HCL hospital network: ML models for early detection and treatment-outcome prediction in Hodgkin lymphoma.
- Conducted under clinical data-governance constraints (anonymization, auditability, interpretability); aiming at a co-authored publication.

Research · Machine Learning · Medical AI · Python · Healthcare

Data/AI Intern Jul - Aug 2026 (Summer internship)
[Axian Group - MVolA \(Yas\) - Antananarivo, Madagascar](#)
- Designed and shipped "QoS Hub" to production: service-quality analysis platform for 3 mobile money operators (Madagascar, Tanzania, Togo) - 22,451 incidents unified from 3 heterogeneous sources. Python, FastAPI, PostgreSQL, Docker, Kubernetes.
- Normalized 3 incompatible data formats (57-field ServiceNow export, local-time export with second-based durations, hand-kept register) via idempotent converters and ticket-number merge.
- 129 automated tests; a blank-deployment dry-run surfaced two defects before go-live. Entra ID OIDC auth with negative-tested, server-side per-country scoping.

Python · FastAPI · pandas · PostgreSQL · Docker · Kubernetes · OIDC / Entra ID · Data Engineering · Fintech

Software Developer Sep 2025 - Feb 2026 (6 months)
[Paris Corporate Housing - Paris, France](#)
- Automated internal processes for a ~25-person real estate company, within a 6-person IT team.
- Built multi-system automation workflows (n8n, Jenkins, AWS, Salesforce) saving ~40h/week; drove 80-90% adoption among field agents.

n8n · Jenkins · AWS · Salesforce · OCR · Automation · GDPR · S3

Co-Founder & CTO Aug 2023 - Feb 2025 (1 year 7 months)
[Kanel Records -> Kanel IT LLP - London, UK](#)
- Co-founded an AI music-generation startup, pivoted it into Kanel IT, a web & app development studio - led a commission-based dev team through the full client lifecycle, from prospecting to delivery.

AI · Entrepreneurship · Team Leadership · Client Management · Web Development · Sales

AWARDS

Ecothon (EPITA × onepoint) - 1st Place, onepoint Prize Jul 2026
[EPITA, in partnership with onepoint - Lyon, France](#)
- 1st place (onepoint Prize), team of 5: a cloud carbon-impact simulator - which VM, provider and country for the real workload need, at the best carbon and price.
- Engine validated against the Boavizta API (max deviation 0.42%); fully static, zero-dependency build enforced under 100 KB gzip.

World Model Hackathon (EB-JEPA) - Qualified Top 100 / 650 teams Jun 19-20, 2026
[Hackathon hosted by Yann LeCun - France](#)
- World-models track ("H-JEPA"): a 2-level hierarchical JEPA navigating pixel mazes entirely in latent space, no A* in the loop - 45% -> 86% success on 200 seeded mazes (organizer baseline ~66%).
- Negative results documented: sharpening the learned metric with hard negatives regressed success 86% -> 75.5%.

FEATURED PROJECTS

EdgeOrchestra 2025-2026
[Federated self-supervised learning on Apple devices - open-source, solo project](#)
- Built an end-to-end federated learning system: Python orchestrator (FastAPI, gRPC, PostgreSQL/Redis) and native iOS/macOS workers with on-device CoreML training, TLS/mTLS, zero-config discovery, battery/thermal-aware scheduling.
- Federated instantiation of LeJEPA (Balestriero & LeCun's heuristics-free JEPA): reproduced the centralized reference (88.5% linear probe, CIFAR-10), diagnosed a critical collapse mode via exact numerical fingerprinting, and built non-IID benchmarks (Dirichlet partitions) - under pre-registered decision rules, bit-exact reproducibility and a 30+ entry lab notebook.

Python · Swift · FastAPI · gRPC · CoreML

AutoPilot AI 2026
[Self-hosted RAG chatbot - fine-tuned, live in production](#)
- Self-hosted RAG chatbot running live on tristanfaure.com: in-browser retrieval (MiniLM + BM25 + cross-encoder reranking), generation on a self-managed server - no external API.
- Fine-tuned Qwen3-0.6B with LoRA on Apple MLX, gated by a 40-question golden eval (FR/EN + refusal tests) before any checkpoint ships; llama.cpp serving with SSE streaming and graceful extractive fallback.

Qwen3 · LoRA (MLX) · llama.cpp · FastAPI · Transformers.js

Physic Latent JEPA 2026
[Self-supervised EEG representation learning with physics anchors - TUAB corpus](#)
- Self-supervised JEPA on the TUAB clinical EEG corpus (2,717 recordings) with physics anchors (amplitude, phase, bandpower); built in 2 days at the LeCun hackathon.
- 79.0% balanced accuracy with a patient-disjoint probe, beating masked/temporal/random baselines with the healthiest latent (effective rank 14.8, 0% dead dimensions).

PyTorch · JEPA · Self-Supervised Learning · EEG · VICReg

Senko - Capture & Focus 2026
[iOS productivity app - on-device speech, LLM extraction, closed TestFlight beta](#)
- iOS voice capture to structured tasks: Whisper large-v3-turbo runs on-device (574 MB model) so no audio leaves the phone; closed TestFlight beta.
- Claude extraction pipeline with a 24-case regression harness gating every prompt or model change; cost per call measured (0.21¢ vs 0.53¢) to choose the model on data, not intuition.

Swift · React Native · Expo · Whisper.cpp · Claude API

EDUCATION

Computer Engineering - SCIA-G (AI specialization) 2021 - 2027
[EPITA - Paris -> Lyon, France](#)
Five-year engineering program (M.Sc. level), incl. a 1-year entrepreneurial gap building Kanel IT. Major: SCIA - Machine Learning & Computer Graphics.

SKILLS

Languages: Python, C/C++, TypeScript, Swift, SQL
ML: PyTorch, self-supervised learning (JEPA), LoRA fine-tuning (MLX), federated learning, CoreML, evaluation harnesses, pandas
Data & Backend: PostgreSQL, Redis, FastAPI, gRPC, Next.js
Infra: Docker, Kubernetes, Linux, CI/CD (Jenkins), AWS, OIDC / Entra ID, Prometheus

LANGUAGES

French (Native) · English (Fluent - TOEIC 990/990) · Bulgarian (Native / Bilingual) · Spanish (Professional Working (B2))