

Louis Bensard

Co-founder & CTO · ML/AI Engineer

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CTO and ML/AI engineer with 7+ years building forecasting and decision-intelligence systems from research to production. Own the full technical stack — machine learning, data infrastructure, and product engineering — as a startup co-founder and at enterprise scale. Turn ambiguous business problems into shipped ML/AI systems and lead the teams that run them.

PROFESSIONAL EXPERIENCE

SIGHTLINE OS

New York, NY

Co-founder & CTO (prev. Head of Data & AI)

Aug. 2025 – Present

- **AI/ML Strategy & Forecasting Architecture:** Own AI/ML strategy end to end; designed and built a production time series forecasting engine spanning thousands of item-level series, achieving sub-5% wMAPE with a custom PyTorch Transformer (PatchTST) architecture and hurdle modeling for intermittent demand.
- **ML Lifecycle & MLOps:** Built the full ML lifecycle in-house: feature engineering, hyperparameter optimization, multi-seed ensembling, and GPU training on AWS Batch with Weights & Biases experiment tracking.
- **Decision Intelligence:** Architected the layer that converts raw model output into ranked, explainable recommendations using composite impact scoring and next-best-action logic.
- **Data Platform & Infrastructure:** Designed and built the data platform powering all ML: multi-source ETL with data-quality validation and idempotent bulk loading into PostgreSQL, processing millions of rows on AWS (S3, Lambda, SQS).
- **Product Engineering:** Own infrastructure and technical architecture for the multi-tenant customer-facing product (Next.js/TypeScript), operationalizing ML output for enterprise customers.
- **Technical Leadership:** Built the engineering team from scratch; instituted engineering standards (testing, CI/CD, documentation) and defined the data & AI roadmap and technical hiring process.

Tech: Python (PyTorch, scikit-learn, statsmodels), SQL/PostgreSQL, AWS (Batch, Lambda, S3, ECS), Docker, Next.js/TypeScript, MLOps, CI/CD

EKIMETRICS

New York, NY

Manager & Tech Lead, Data Science

Jul. 2024 – Aug. 2025

- **Bayesian & Time Series Modeling:** Built Bayesian marketing-mix and time series forecasting models (PyMC, scikit-learn) for Fortune 500 clients in retail and beauty, from scoping through deployment.
- **Business Impact:** Managed end-to-end projects generating \$20M+ in measured business impact through data-driven strategies.
- **Client & Team Leadership:** Primary technical contact for 10+ strategic accounts, presenting to C-level stakeholders; led a team of 9+ data scientists and contributed internal tooling that cut project ramp-up time by 25%.

Tech: Python (PyMC, scikit-learn, XGBoost, Pandas), SQL, Bayesian regression, MLOps, Git

STRATOS AVIATION

New York, NY

Founder & Engineer

Jul. 2023 – Dec. 2024

- **Product:** Independently designed, built, and shipped Stratos, a data-driven iOS app for general-aviation pilots (Swift), live on the App Store.
- **ML for Pilots:** Deployed KNN models on time series and geospatial flight data for personalized airport and route recommendations; built a fine-tuned LLM assistant for pilots.
- **ML Pipelines:** Automated preprocessing, feature selection (Boruta, RFE), and model evaluation with scikit-learn, integrated with on-device Core ML models in production.

Tech: Swift, Python (PyTorch, TensorFlow, scikit-learn, Pandas), LLM fine-tuning, KNN, NLP, Core ML, GCP, REST APIs

IPSOS MMA, INC.

New York, NY

Manager & Tech Lead, Data Science

Jul. 2019 – Jun. 2023

- **Bayesian Marketing Mix Modeling:** Built robust MMMs with PyMC3 and scikit-learn, optimizing time series KPI data for Fortune 500 clients.
- **Predictive Analytics at Scale:** Developed and deployed hundreds of predictive models (scikit-learn, XGBoost, TensorFlow) on 10B+ data points, integrating marketing, macroeconomic, and business intelligence data.
- **Interpretability & Impact:** Delivered strategic insights to C-suite executives using SHAP, LIME, and interpretable models; managed projects worth \$4–6M annually.

Tech: Python (PyTorch, Pandas, scikit-learn, NumPy), Bayesian MMM, MCMC, regression, SVM, GBM, PCA, AWS, REST APIs, Git

PANASONIC AVIONICS

Machine Learning Engineer

Fullerton, CA

Jan. 2019 – May 2019

- **Recommendation Engine:** Built a production ML recommendation engine (scikit-learn, TensorFlow) optimizing airlines' in-flight movie selection from passenger viewing history.
- **Predictive Modeling:** Predicted passenger viewing preferences with 85%+ accuracy using custom GBM models on a 10M × 50 dataset, enabling airline media portfolio strategies.

Tech: Python (TensorFlow, XGBoost, scikit-learn, Pandas, Statsmodels), GBM, KNN, PCA, Git

EDUCATION

CALIFORNIA STATE UNIVERSITY, FULLERTON

Master of Science, Statistics

Fullerton, CA

2017 – 2019

- summa cum laude, 4.0 GPA, top of class; Phi Kappa Phi Honor Society
- Machine Learning & AI, Deep Learning, Reinforcement Learning, Bayesian Analysis, Advanced Probability & Statistics, Multivariate Analysis, Algorithms

SORBONNE UNIVERSITÉ

Bachelor of Science, Mathematics · Bachelor of Science, Computer Science

Paris, France

2014 – 2017

- Linear Algebra, Probability, Complex Analysis, Abstract Algebra, Data Structures & Algorithms, Operating Systems, Theory of Computation

TECHNICAL SKILLS

- **ML/AI:** Time series forecasting, Transformers (PatchTST), deep learning (CNNs, RNNs), gradient boosting, Bayesian modeling (MCMC), LLM fine-tuning, NLP, reinforcement learning, hyperparameter optimization, feature engineering, backtesting, MLOps
- **Engineering:** Python (PyTorch, TensorFlow, scikit-learn, NumPy, Pandas, Statsmodels, XGBoost), SQL/PostgreSQL, AWS, GCP, Docker, CI/CD, testing, Next.js/TypeScript, Swift
- **Math & Statistics:** Probability theory, linear algebra, Bayesian statistics, optimization, marketing-mix modeling and multi-touch attribution
- **Leadership:** Technical strategy and architecture (0→1), full-stack system ownership, ML platform and roadmap, engineering standards, technical hiring and team building

INTERESTS & LANGUAGES

- **Aviation:** Private pilot (PPL) since 2022
- **Rock climbing:** Competed at national level in France
- **Languages:** English (fluent), French (native), Spanish (proficient)