

# Gautam Govindarasan

Data Scientist — Machine Learning Engineer — Quantitative Analyst

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## Professional Summary

Data Scientist with expertise in machine learning, deep learning, and big data engineering. Published researcher in IEEE and Springer with contributions to healthcare AI and cybersecurity. Delivered 92% customer satisfaction at HP Inc. through effective technical communication. Skilled in building ML pipelines, handling unstructured data, and deploying models via Streamlit dashboards.

## Education

### New Jersey Institute of Technology

*Master of Science in Data Science — GPA: 3.67/4.0*

*Newark, NJ*

Sept 2025 – May 2026

- Coursework: Machine Learning, Big Data Analytics, Statistical Methods, Neural Networks, Data Mining

### Vellore Institute of Technology

*Bachelor of Technology in Computer Science (Data Science Specialization)*

*Vellore, India*

Sept 2020 – Aug 2024

- Coursework: Artificial Intelligence, Algorithms, Database Systems, Probability and Statistics

## Work Experience

### Technical Solutions Specialist

*Technical Support and IT Service Management*

*HP Inc.*

Oct 2024 – Apr 2025

- Resolved 150+ hardware and software issues monthly for global enterprise customers, sustaining 92% satisfaction through effective communication.
- Diagnosed complex driver, firmware, and connectivity problems across Windows, macOS, and Linux using systematic troubleshooting.
- Streamlined workflows through documentation enhancements, reducing resolution time by 18% and improving team efficiency.
- Collaborated with senior engineers on 50+ escalations, authoring 15+ knowledge base articles used by 20+ team members.

### Data Analyst Intern

*Business Intelligence and Analytics*

*Hope Clothing Limited*

May 2023 – Aug 2023

- Analyzed 50,000+ customer records using clustering algorithms, boosting campaign response rate by 5%.

- Designed SQL-Python-Tableau dashboards for executives, accelerating weekly reporting by 40% and enabling faster decisions.

- Applied K-means and time-series forecasting to purchasing data, lowering inventory overstock by 12% and reducing costs.

- Automated 8 data pipelines with Python, saving 10+ hours weekly and eliminating manual data entry errors.

## Projects

### Basket Trading Optimizer

*Bayesian Methods, Python, Quantitative Finance*

Dec 2025 – Jan 2026

- Developed portfolio system using Bayesian optimization to maximize risk-adjusted returns across 50+ equity baskets.
- Executed efficient frontier analysis with Sharpe ratio targeting, backtesting on 2 years of historical equity data.

### Somnisage – AI Sleep Disorder Classification

*Deep Learning, PyTorch, Healthcare AI*

Jan 2024 – Mar 2024

- Engineered convolutional-recurrent architecture attaining 93% accuracy on Sleep-EDF dataset (1,000+ recordings).
- Processed unstructured EEG signals with feature extraction and built Streamlit dashboard for interactive model inference.

### EPL Football Analytics

*Spark, Kafka, AWS, Tableau, Data Engineering*

Dec 2025 – Jan 2026

- Architected streaming pipeline analyzing 2 English Premier League seasons using Kafka, Spark, and AWS S3.
- Generated match outcome models (72% accuracy) and crafted Tableau dashboards for player performance analytics.

## Publications

### Skin Disorder Classification using Neural Networks

– IEEE ACOIT 2024 [Link]

- Proposed convolutional-recurrent architecture for automated vitiligo versus scar classification in dermatological images.
- Attained 94.48% precision, 93.40% accuracy, and 92.57% recall, demonstrating clinical diagnostic potential.

### Detection, Prevention, Mitigation of XSS Attacks

– Springer ICGCPA 2024 [Link]

- Conducted comprehensive survey analyzing 15+ XSS defense techniques including ML, deep learning, and policy-based methods.
- Introduced three-part taxonomy (detection, prevention, mitigation) to guide security practitioners in technique selection.

### Music Mood Equation

– Springer ICGCPA 2024 [Link]

- Formulated ML models correlating audio features (tempo, key, energy) with mood states for mental health applications.
- Enabled personalized music recommendation systems targeting emotional well-being and therapeutic interventions.

## Skills

**Languages:** Python, SQL, Java, C++, R, JavaScript, Bash

**Machine Learning:** PyTorch, TensorFlow, Scikit-learn, Keras, XGBoost, LightGBM, Transformers, LangChain, OpenCV

**Data Engineering:** Pandas, NumPy, Spark, Kafka, Hadoop, Databricks, Airflow, ETL Pipelines, Data Modeling

**Quantitative:** Time Series Analysis, Bayesian Methods, Monte Carlo, Regression, Hypothesis Testing, A/B Testing

**Cloud/Tools:** AWS (EC2, S3, Lambda), Docker, Git, Streamlit, Tableau, Power BI, Linux, Jupyter, JIRA

**Core Strengths:** Cross-functional Collaboration, Technical Communication, Data Storytelling, Agile Methodology

## Certifications

- IBM Artificial Intelligence Analyst – Professional Certificate [Verify]

- MIT Computational Thinking and Data Science – edX Certificate [Verify]

- Oracle Cloud Infrastructure 2023 Foundations Associate – Oracle [Verify]