

Asahi Lama Sherpa

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TECHNICAL SKILLS

- **Languages:** Python, SQL, C++
- **Machine Learning & Statistics:** Feature engineering, model validation, cross-validation, calibration, time-series modeling (ARIMA, GARCH), Monte Carlo simulation
- **ML & Data Tools:** PyTorch, scikit-learn, statsmodels, TensorFlow, pandas, NumPy, spaCy, FAISS
- **Data & Systems:** Linux, Git, Docker, FastAPI, ETL pipelines, Parquet, SQLite
- **Analytics & Visualization:** Power BI, KPI design, dashboards, stakeholder reporting

WORK EXPERIENCE

Mississippi State University

Starkville, MS

Machine Learning Research Assistant

Nov 2024 – Aug 2025

- Built a high-throughput 3D event analysis and visualization pipeline for **100,000+** particle-physics data, increasing processing throughput by **65%**.
- Delivered 2 fully reproducible experiment workflows with fixed seeds, versioned datasets, and CI-tested utilities, reducing collaborator onboarding time by **1+ week**.

Mississippi State University

Starkville, MS

Applied Machine Learning Research Assistant

Sep 2024 – Aug 2025

- Achieved **92%** triage accuracy by engineering domain-specific features and calibrated ensemble models for EEG/ECG/EMG biosignal classification (ADHD vs. control) outperforming baseline pipelines by **25%**.
- Reduced end-to-end inference latency by **15%** through pipeline profiling and optimized windowing strategies.
- Standardized a documented data schema and validated **100+** anonymized records across **3** institutions in collaboration with domain experts enabling consistent training and evaluation.

LonePine Investments

Kathmandu, Nepal

Quantitative Research Intern

May 2024 – Aug 2024

- Improved walk-forward robustness by modeling returns and volatility separately and applying Monte Carlo stress tests over **5-year** historical windows.
- Cut research cycle time by **40%** by automating ingestion for **100+** market and alternative data sources and parameterizing backtests.
- Built an internal research dashboard used in weekly portfolio reviews to compare signals and stability metrics.

PROJECTS

Winning XI - World Cup Outcome Predictor

- Built a probabilistic match and tournament outcome predictor using historical international match data, calibrated team strength ratings, and Monte Carlo simulation.

Who's That? - One-Shot Face Recognition System

- Implemented a one-shot face recognition pipeline using pretrained deep learning models, enabling identity recognition from a single labeled image in live camera feeds.

QuickQuant - Financial News Analyzer

- Processed **1,000+** financial articles per day and enabled sub-second semantic retrieval to improve signal precision using embedding-based similarity search.

EDUCATION

Mississippi State University, Shackouls Honors College

Starkville, MS

B.S. Computer Science & B.S. Mathematics (Double Major)

Expected May 2027

GPA: 3.85 / 4.00

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Machine Learning, Linear Algebra, Probability & Statistics, Numerical Analysis, Differential Equations

POSTERS & LEADERSHIP

- **Poster Presenter (2x):** X-17 boson search (AT-TPC); ADHD biosignal triage. Research symposium, 2025.
- **2× National IPDA Debate Champion** (first in university history); **Best Speaker (Division)**.
- **Datathon Runner-up:** Led a 4-person team; ML solution optimized **\$1M+** resource allocation; delivered technical report and stakeholder pitch.
- **Resident Advisor:** Supported **100+** residents through programming, conflict mediation, and crisis response.