

Golam Hisham

901-437-9899 | hisco-26@rhodes.edu | golamhisham.github.io | linkedin.com/in/golamhisham | github.com/golamhisham

SUMMARY

AI/ML engineer delivering **client-ready data solutions** via **machine learning**, **predictive models (Scikit-Learn)**, **natural language processing (NLP)**, **advanced analytics**, **statistics**, and **data mining**; end-to-end **data engineering** (ETL, data lakes) and **data modeling** with cross-functional delivery of **dashboards**.

EDUCATION

Rhodes College Memphis, TN
B.S. in Computer Science, Minor in Statistics, GPA: 3.4 Aug 2022 – May 2026
• Selected coursework: **Data Structures & Algorithms**, **Operating Systems**, **Databases**, **Advanced Algorithms**, **Computer Systems**, **Theory of Computation**, **Graphics/HCI**, **Machine Learning**, **Applied Statistics**

TECHNICAL SKILLS

Languages: Python, SQL, C++, R
ML/AI: Scikit-Learn, natural language processing (NLP), predictive models, statistics, data mining, model validation
Data/Backend: PostgreSQL, SQLAlchemy, ETL, data modeling, data lakes, big data technologies
Cloud/Tools: AWS, Docker, Git

EXPERIENCE

Research Assistant – Generative AI for Noise-Resilient Forecasting Jan 2025 – Present
Rhodes College Memphis, TN
• Designed and evaluated **regression-GAN** and **Scikit-Learn** baselines to improve **noise-robust forecasting**; ran **statistical tests** and error diagnostics to validate model performance for decision support
• Built end-to-end **Python data pipelines** (ingest/clean/**feature engineering**); benchmarked **ARIMA**, **LSTM**, **TimeGAN** and classical ML to compare **predictive accuracy** and **robustness** on large, noisy datasets
• Delivered **reproducible experiments**, clear documentation, and **dashboards** so stakeholders could interpret results and make **data-driven decisions** on tight timelines

Software Engineer – NASA CubeSat Project Jan 2023 – Sep 2023
Rhodes College Memphis, TN
• Designed and implemented **ETL pipelines** for **50+ sensor** streams; enforced **data-quality checks** and schema controls to support scalable analytics and downstream **ML**
• Optimized **PostgreSQL** queries over **10K+** telemetry records (**40%** runtime improvement) to accelerate complex analysis, monitoring, and downstream **predictive modeling** for mission stakeholders
• Delivered **audit-ready datasets** and **visual reports/dashboards**; collaborated with **cross-functional** teams to meet **project timelines** and stakeholder deliverables

Teaching Assistant (Summers 2024, 2025) Jul 2024 – Aug 2024 | Jun 2025 – Aug 2025
Johns Hopkins University Baltimore, MD
• Taught 50+ students **Python** and **Java**; led modules on **algorithms** and **recursion**; authored hands-on **labs**, introduced **Git/GitHub** workflows, and mentored teams to deliver a playable **game** capstone.
• Ran **pre/post assessments** and targeted support, driving a **41.7%** average score increase; facilitated code reviews and debugging sessions to improve submission quality and on-time project completion.

PROJECTS

GenAI Risk & Compliance Summarizer | *Python, PostgreSQL, Hugging Face, Streamlit* June 2025 – Present
• Built **ETL/data lake** ingestion for **50K+ SEC filings**; designed schemas enabling **data mining** and **compliance-ready analysis** aligned to **project timelines**, delivering client-ready **data solutions**
• Applied **natural language processing (NLP)** (Transformers) to extract risk factors and generate **summaries/visualizations** for stakeholders; validated outputs with **statistical checks**
• Delivered an **interactive dashboard** enabling **predictive insights** and exploration of cybersecurity/compliance themes

NLP Text Insight Engine | *Python, Hugging Face, FastAPI, Next.js, Docker, Haystack* Oct 2024 – Feb 2025
• Engineered **data pipelines** (GoEmotions, Sentiment140) for **Transformer** training; implemented **preprocessing**, **tokenization**, and label validation
• Deployed **FastAPI** inference service and integrated with web UI to analyze large text corpora for **sentiment**, **emotion**, and **intent**
• Managed **project deliverables** through **cross-functional collaboration**; integrated outputs into **reports/dashboards** with **monitoring/logging** to maintain **data quality** and service reliability

Issue Tracking System | *FastAPI, PostgreSQL, Docker, GitHub Actions, React* Feb 2024 – Aug 2024
• Designed a relational model with **10+** normalized tables and **indexes**; strengthened **data integrity** and **query performance** for analytics
• Automated **CI/CD** with GitHub Actions to validate ORM/schema migrations, prevent regressions in **data engineering** workflows