

HARDIK SRIVASTAVA

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[Portfolio](#) | [LinkedIn](#) | [LeetCode](#) | [ResearchGate](#) | [Google Scholar](#) | [GitHub](#)

EDUCATION

University of Washington Seattle, WA
Master of Science in Data Science Sept 2025 - Mar 2027

SRM Institute of Science and Technology Chennai, TN
B.Tech in Computer Science Engineering with specialization in Big Data Analytics (GPA - 3.82/4) May 2019 - Jun 2023

WORK EXPERIENCE

Graduate Research Assistant (P.I. - Prof. Zaid Harchaoui) Sept 2025 - Present
Paul G. Allen School of Computer Science, University of Washington *Seattle, WA*

- Engineered and fine-tuned **modular LoRA adapters** for **controllable rewriting**, then built a **metric-driven agentic system** to plan and execute authorial style remixing via learned style representations and attribution classifiers under privacy-fidelity constraints.
- Formalized **16+ authorial style axes** as interpretable control variables with **closed-loop logic** for dynamic perturbation scaling. Improved anonymity by 40% on AuthorMix (30K texts/14 authors) while preserving 88% semantic similarity and 5% perplexity drift.
- Optimized agent policies via **multi-objective feedback** and conducted empirical analysis across multilingual datasets. Benchmarked the system against larger LLM baselines, achieving **privacy gains at 3x lower inference cost** and **34% fewer generated tokens**.

Applied Scientist 2 Jun 2023 - Aug 2025
JPMorgan Chase & Co. *Hyderabad, TS*

- Led **fraud detection** initiatives saving over **\$220M annually** by developing high-recall classifiers using **XGBoost** and **CatBoost**; leveraged **multi-objective optimization** to preserve feature interpretability for business partners.
- Deployed Semi-Supervised Graph Neural Networks on 60M+ transaction nodes; introduced **topology-aware edge sampling** and **dynamic neighborhood aggregation**, boosting fraud-detection **precision by 9.2% over 2M transactions/day**.
- Designed and productionized a CLIP-style **Contrastive Pre-Trained Transformer** (ViT encoder & BERT-style decoder) for **Document OCR** to detect Check fraud, processing **500K+** checks daily with a **19% boost** in text matching accuracy.
- Built **Learning-to-Rank** entity matching system for KYC using Pairwise Ranking loss to alert fraud entities; Outperformed the TF-IDF baseline on **3B+ records**, cutting **62% false positives** and saving **700+** manual review hours daily.
- Developed data pipelines for high-volume transactions in PySpark. Performed **optimal feature selection** using **Decision Trees** that boosted **Fraud Capture rate** by **14%** and enhanced predictive accuracy for risk scoring models.

Research Intern Jun 2022 - Sept 2022
McGill University - [Mitacs Scholar](#) *Montreal, QC*

- Developed **RoBERTa-based sentence embeddings** on AAC image captions to capture word-context. Achieved **Krippendorff's alpha** reliability score of **0.82** for context-aware vocab retrieval; deployed the model in [ClickAAC](#) mobile application.

Machine Learning Engineer - Intern Jan 2022 - Jun 2022
Samsung Research *Bangalore, KN*

- Optimized **word-context relationships** for Samsung Bixby search using bipartite graphs, reducing **false-positive** preds by **12%**. Matched **FP32** perf for INT8 inference using quantization-aware training for word-disambiguation task with a **2.9% F1 gain**.

PROJECTS

Agentic Ad Intelligence Engine [\[code\]](#) Built a hyperpersonalized ad intelligence system that constructs **dynamic user personas** from behavioral signals and generates **context-aware ad variants** conditioned on audience attributes; implemented **feedback-driven ranking** and **attention-aware decision logic** using ensemble engagement predictions for **smart ad delivery** enabling scalable personalization.

PUBLICATIONS

- Srivastava, H.** (2023). Multi-Modal Sentiment Analysis Using Text and Audio for Customer Support Centers
- Srivastava, H.** (2023). Neural Text Style Transfer with Custom Language Styles for Personalized Communication Systems
- Srivastava, H.** (2021). Using NLP Techniques for Enhancing Augmentative and Alternative Communication Applications

ACCOMPLISHMENTS

- Certifications** — AWS Certified Machine Learning Specialist, AWS Certified Cloud Practitioner
- Hackathons** — xAI Hackathon'25 (**Bronze**), UWxDatabricks Hack'25 (**Bronze**), JPMC AWS DeepRacer'23 (**Gold**)

SKILLS

AI/Research	Machine Learning, NLP, Sequence Modeling, Statistical Modeling, Probabilistic Reasoning, Graph-ML, Transformers Semi-Supervised Learning, Ranking, Agentic-AI, LLM Inferencing, Time Series Forecasting, Data Analysis
CS/Tooling	C++, Python, SQL, PyTorch, TensorFlow, Caffe, Sklearn, Spark, Kafka, W&B, HuggingFace, Optuna, Git
Infra/MLOps	AWS, Docker, Kubernetes, Flask, MLFlow, NVIDIA Triton, Feature Stores, Data Version Control, Jenkins