LINJIA TANG

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Toronto, ON, Canada

SKILLS

- **Languages:** Python (Pandas, Scikit-learn, Numpy, PyTorch, TensorFlow, etc.), C/C++, SQL(MySQL, DB2), R, HTML, JavaScript
- **Tools:** Jupyter Notebook, Linux, Git, Google Cloud Platform, Amazon Web Services, Hugging Face, Large Language Models
- **Machine Learning Models:** Linear Regression, Logistic Regression, SVM, XGBoosts, Random Forests, KNN, RL, EM, etc.
- **Deep Learning Models:** CNNs, RNNs, LSTM, GANs, Transformers, Llama, Diffusion Model, etc.

Education

University of Waterloo   09/2020 - 12/2025

Waterloo, Ontario

- Candidate for Honors Bachelor of Computer Science
- cGPA: 91%
- Anticipated graduation date: 12/2025

Experience

Full Stack Engineer Intern   02/2025 - 04/2025

New Boundary Inc - Creao AI, San Jose, California (Remote – Toronto, Canada)

- Optimized chunk text models, integrating them into RAG applications and associated APIs for enhanced split and retrieval
- Developed AI agents to simulate API call interfaces, refine tool generation, and provide relevant examples
- Built AI-driven, self-learning agentic workflows using LLMs to automate documentation and orchestrate processes

Part-time Research Assistant - LLM Security Research   09/2024 - 12/2024

University of Waterloo, Waterloo, Ontario

- Researched a prompt caching system that accelerates LLM services by reusing calculations for self-attention and key-value caches to improve efficiency for repeated user queries
- Evaluated the system's security by analyzing time-to-first-token latency and cache hit rates and examining the reuse of computations to prevent unauthorized access and avoid revealing information through the length of tokens in a message
- Reviewed numerous research papers in machine learning, security, and cache to keep up with the latest developments

Machine Learning Algorithm Engineering Intern   02/2024 - 04/2024

Shanghai Algorithm Innovation Research Institute, Shanghai, China

- Performed a series of Data Preparation processes, including feature selection, data extraction, cleaning, and integration
- Optimized tobacco manufacturing processes by building and training models for leaf moisture prediction, pre-control, and fault detection using XGBoost, LSTM, KNN, and Random Forest to ensure stable and high-quality tobacco output
- Improved curing yield by 15%, enhanced prediction accuracy by 30%, and reduced downtime by 20%

Projects

Basketball free throw percentage prediction model   09/2024 - 11/1024

- Developed a predictive model in PyTorch to estimate a player's free throw percentage based on pre-shot action parameters
- Applied advanced feature engineering, including data integration, normalization, imbalanced data handling, and feature selection
- Conducted an in-depth performance evaluation using XGBoost as the final model, achieving an 82% accuracy rate on the test set
- Leveraged Gemini 1.5 Flash large language model on Google Colab to generate personalized training suggestions, providing players with tailored advice to refine their shooting techniques