Jason Tang

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EXPERIENCE

Crossing Minds — *Applied Machine Learning Intern*   May 2023 – Dec 2023

- Driving a **40% upsell** to a multi-billion dollar brand by pioneering an **image-to-text** data enrichment service, while also garnering substantial interest and upsell potential in existing and incoming clients.
- Enhancing text-based catalog search in **conversational AI recommendation systems** with image-generated captions, targeting a **20% accuracy** increase for clients with limited product descriptions.
- Redesigning **content-based recommendation systems** used in **10-15 monthly demos** for potential customers, facilitating precise recommendations in scenarios with minimal or absent interaction data.

Amazon — *Software Development Engineer*   July 2021 – Aug 2022

- Designed critical workflow features used by **500,000+ sellers** to track **1.8 million weekly shipments**.
- Led the development of a partial failure process to display available data during API failures, resolving a year-long issue causing **1,000+ daily shipment errors** affecting 4 dependent teams.
- Managed a **$150,000 yearly budget** to forecast and scale infrastructure for peak traffic events.

Royal Bank of Canada — *Data Science Intern*   May 2020 – Aug 2020

- Improved expense forecasting accuracy by **11.7%** through a real-time analytics dashboard utilizing **time series analysis** with ARIMA and RNNs, automating the original 2 week manual process.
- Pitched the prototype to senior leaders and 300+ employees, attaining the **top award** out of 9 teams.

University of Toronto IT Services — *Data Scientist Intern*   May 2019 – Aug 2019

- Reduced salary band evaluation time for job descriptions by **82%** while maintaining an accuracy of **98.3%** compared to manual assignments by leveraging **Word2vec** and **dense neural networks**.
- Applied **model interpretability** methods to identify and highlight influential key terms for clients with a desired salary band to modify, resulting in a **96% satisfaction rate** in the pilot testing phase.

RESEARCH

Robot Vision and Learning Lab — *Research Assistant*   Oct 2020 – Feb 2022

- Assisted Professor Florian Shkurti in overcoming the impractical but common assumptions of known **task boundaries and identities** in **image-based continual learning**, funded by LG Electronics.
- Distinguished boundaries on Split-CIFAR100 with **96.2% accuracy** by adapting an **energy-based method** from out of distribution detection literature and minimizing fluctuations with **Kalman filters**.
- Explored **negative sampling** and **core set** methods to mitigate forgetting in task recognition models.

EDUCATION

University of Toronto

Masters of Science in Applied Computing — *GPA: 4.00/4.00*   Sept 2022 – Dec 2023
Bachelors of Science in Computer Science — *GPA: 3.86/4.00*   Sept 2017 – June 2021

SKILLS

Languages: Python (PyTorch, Hugging Face, Pandas), Java, SQL, JavaScript/TypeScript (React), C.

Tools: 2D/3D Computer Vision, NLP, Recommender Systems, Git, Unix, Shell, Security, AWS.