MATTHEW Y. R. YANG

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EDUCATION

Carnegie Mellon University, Machine Learning Department · 08/2024 – present
MS in Machine Learning
- Relevant courses: Large Language Models, Machine Learning

University of Waterloo · 09/2019 – 04/2024
Bachelor of Computer Science, Statistics Minor
- GPA: 4.0/4.0. Dean's Honours.
- Relevant graduate courses: Foundation Models, Machine Learning, ML Theory, Artificial Intelligence, Linear Models

PUBLICATIONS

Disguised Copyright Infringement of Latent Diffusion Models · paper · code — ICML 2024
Yiwei Lu*, **Matthew Y. R. Yang***, Zuoqiu Liu*, Gautam Kamath, Yaoliang Yu. *Equal contributions.

Indiscriminate Data Poisoning Attacks on Pre-trained Feature Extractors · paper · code — SaTML 2024
Yiwei Lu, **Matthew Y. R. Yang**, Gautam Kamath, Yaoliang Yu

"Low-Resource" Text Classification: A Parameter-Free Classification Method · paper · code — ACL 2023
Zhiying Jiang, **Matthew Yang**, Mikhail Tsirlin, Raphael Tang, Yiqin Dai, Jimmy Lin

Integration of Text and Geospatial Search for Hydrographic Datasets · paper · code — JCDL 2022
Matthew Y. R. Yang, Siwen Yang, Jimmy Lin

Improved Accuracy vs. Privacy Trade-off in Perturbed Nearest Neighbour Searches · code — Under Review
Matthew Y. R. Yang, Thomas Humphries, Florian Kerschbaum

WORK EXPERIENCE

Machine Learning Engineer · 09/2022 – 03/2023
Needl (Y Combinator Startup) · Seattle, WA
- Designed and implemented strategies to collect and process user signals to benchmark the core search product
- Researched various LLM-based document retrieval algorithms to decide on the company's new search architecture
- Hired as the company's first employee

Software Engineer Intern · 05/2022 – 08/2022
Rippling · San Francisco, CA
- Designed and implemented a major feature into Rippling's core product that allows companies to track and manage IT requests in Python, significantly improving the user experience of IT admins
- Gave team-wide tutorials on code architecture to onboard full-time engineers

Software Engineer Intern · 09/2021 – 12/2021
Wish · San Francisco, CA
- Developed internal tools that allow Wish's business team to handle withheld merchant payments

Machine Learning Engineer Intern · 01/2021 – 04/2021
Oanda · Toronto, ON
- Built an ML pipeline that includes data cleaning, feature selection, and model hyperparameter tuning
- Increased the precision of classifying high-value clients by over 30% compared to the previous model

Software Engineer Intern · 05/2020 – 09/2020
BorgIQ · Toronto, ON
- Added a file storage feature to the core product; built a BorgIQ Slackbot; created the company's landing page

SKILLS

Languages: Python, C++/C, Java, JavaScript, HTML/CSS, SQL, Bash, Scheme
Technologies: PyTorch, Tensorflow, Hugging Face, AWS, Docker, React, Git, LaTeX

AWARDS

CRA Outstanding Undergraduate Research Award Finalist, 2024 — Top 24 in North America
Canadian Math Olympiad, 2018 and 2019 — Top 50 in Canada