Christopher Leung

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20 Months in ML Engineering, 16 Months of Internship Experience, Graduate Student & Researcher.

Skills

LANGUAGES	Python, Java, C++, Scala, C, R, Shell Script, SQL, VBA
TECHNOLOGIES	PyTorch, Tensorflow, Keras, scikit-learn, Storm, FlumeJava, Hadoop, Spark

Work Experience

PINTEREST *Toronto, ON*
Machine Learning Engineer *May 2021 - Present*
- Responsible for Machine Learning Engineering in the Shopping Discovery team.

OKTA *Toronto, ON*
Software Engineer (Machine Learning) *June 2019 - April 2021*
- Designed and implemented a machine learning pipeline to detect cyberattacks on client organizations.
- Implemented and improved statistical and machine learning models to protect users against account takeover.
- Discovered an algorithm that beats the state-of-the-art anomaly detection algorithm in runtime and memory consumption while maintaining comparable accuracy (Patent filed).
- Extracted user typing patterns to detect anomalous users with deep learning models via Tensorflow.

GOOGLE *Mountain View, CA*
Software Engineer Intern *Sept. 2018 - Dec. 2018*
- Improved and optimized existing machine learning model to better detect malicious advertisers in Google Search. Impacted billions of users by increasing area under the precision-recall curve by at least 0.1%.

OKTA *Toronto, ON*
Software Engineer Intern *May 2018 - Aug. 2018*
- Discovered a model that can identify users through typing habits with an accuracy of over 94%.
- Integrated a typing pattern collection mechanism into both the Okta SSO product and data processing pipeline.

IBM *Markham, ON*
Software Developer Co-op *Sept. 2016 - Apr. 2017*
- Implemented a mutex-like API to handle concurrent file access requests between multiple servers. Designed a system to pre-empt locks based on a time quantum to account for server failures.

Education

GEORGIA INSTITUTE OF TECHNOLOGY
Master of Science in Computer Science *In Progress*
- Specialization in Machine Learning - Cumulative GPA: 4.0/4.0

STANFORD UNIVERSITY
Professional Certificate in Artificial Intelligence *In Progress*
- Graduate Courses Completed: NLP, NLU

UNIVERSITY OF WATERLOO
(Hons) Bachelor of Computer Science *June 2019*
- Relevant Courses: Machine Learning, Artificial Intelligence, Learning Theory, Neural Networks

Research Projects

LISTENER-REASONING SPEAKER *Short Paper*
Title: Pragmatic Learning via Listener-Reasoned Utterance Augmentation. *Submitting to ACL 2021*
- Invented a meta-learning technique that solves Stanford's Color Reference task with 94.5% accuracy, beating SOTA by 8%.
- Submitting for initial review at *ACL'20* as first author with the help of Prof. Christopher Potts.

COST-BALANCING CLUSTERING TREE *Long Paper*
Title: Test-Cost Sensitive Methods for Identifying Nearby Points *arxiv: 2010.03962*
- Solved a new problem in budget-constrained data repair with a proposed Markov Decision Process framework.
- Proposed deep reinforcement learning algorithm which outperforms random policies in the context of cost-based data repair.