CHRISTOPHER A. CHOQUETTE

christopher.choquette.choo@mail.utoronto.ca | (647) 783 7567 | christopher-choquette-choo | cchoquette

UNIVERSITY OF TORONTO, ST. GEORGE CAMPUS — Toronto, ON

Bachelor of Applied Science in Engineering Science, Major in Robotics (September 2015 – June 2020)

CGPA: 3.7/4.0, Dean's List every semester

- Schulich Leaders *Full Scholarship* and 3 awards for academic excellence and leadership **Value: *$115,000***

PUBLICATIONS, POSTERS, AND INVITED TALKS

- **Adversarial Machine Learning: Ensuring privacy and security of ML models and sensitive data**. Presented at RE·WORK Responsible AI Summit 2019. **Invited talk**
- **A multi-label, dual-output deep neural network for automated bug triaging.** *Choquette-Choo, C., Sheldon, D., Proppe, J., Alphonso-Gibbs, J., Gupta, H.* International Conference on Machine Learning and Applications 2019. arXiv pre-print 2019. **Oral Presentation + Paper (TBD)**
- **Automated generation of benchmark sets guided by a Bayesian decision maker.** *Proppe, J., Stein, C., Gaudin, T., Hickman, R., Choquette-Choo, C., Head-Gordon, M., Aspuru-Guzik, A.* Molecular Quantum Mechanics Conference 2019. **Poster Presentation**

EXPERIENCE

VECTOR INSTITUTE, UNIVERSITY OF TORONTO — Toronto, ON

Researcher; Machine Learning (Prof. Nicolas Papernot; Computer Engineering) (2019 – Present)

- Creating black-box membership inference attacks to protect sensitive data used in training ML models.
- Designing a new adversarial example-based attack, piloted using top computer vision models and datasets.

Researcher; Machine Learning (Prof. Alan Aspuru-Guzik; Computer Science and Chemistry) (2019 – Present)

- Building a dynamic molecular property predictor to accelerate molecular space exploration.
- Developing a Bayesian model with active learning. **Awarded a poster-presentation at MQM 2019.**

GEORGIAN PARTNERS LP **(focus on applied AI, $1.5B AUM over four funds)** — Toronto, ON

Research Engineer, Machine Learning (Summer 2019)

- Owned development of a differentially private ML model in collaboration with Google's top machine learning library TensorFlow/Privacy, which is used by ~900 people.
- Architected an open-source AutoML package that intelligently creates a tuned ML pipeline and model for any dataset, which is used by ~10 people since its release in Summer 2019.

INTEL CORP. — San Jose, CA

Researcher, Machine Learning (2018 – 2019)

- Spearheaded the creation of a **published** ML bug triager to assign bugs to the best engineers and teams.
- Productionized triager with an engineering efficiency improvement of ~25% and savings of >$10M annually.
- Built an NLP-DNN model with a state-of-the-art 76% accuracy on 500+ teams and 55% on 2000+ engineers.
- Outperformed reference models by >14%-points. Model is being extended to triage for all teams globally.
- Defined and analyzed product weaknesses (with VPs) to ensure successful external releases.

COMPETITIONS

Winner of Microsoft Machine Learning Comp. (20 teams); The Game, Engineering Comp. (of 10+ teams, $10,000 prize)

PROGRAMMING

Proficient Languages: Python, C, Java, MATLAB

Proficient Python Libraries: NumPy, Pandas, Matplotlib, TensorFlow, Scikit-learn, PyTorch,

Familiar Languages: Assembly, Perl, SQL, Elasticsearch, $HTML_5$, CSS_3, JavaScript, Verilog, Apex

LEADERSHIP

Plan Canada (2014 – 2017)

Board Advisor and member of Youth Advisory Council University of Toronto

FoodSkrap Startup (2016 – 2017)

CEO and Founder Toronto, Ontario

University of Toronto Consulting Association (2017 – 2018)

Director of Volunteer Consulting Group University of Toronto

ABOUT ME

Interests: avid rock climber, ex-model, ex-pro StarCraft player, cooking enthusiast, French (DELF B1) speaker