

# CHRISTOPHER A. CHOQUETTE

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## UNIVERSITY OF TORONTO, ST. GEORGE CAMPUS

Bachelor of Applied Science in Engineering Science, Major in Robotics

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

Toronto, ON

(September 2015 – June 2020)

- Schulich Leaders *Full Scholarship* and 3 awards for academic excellence and leadership

**Value: \$115,000**

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## PUBLICATIONS, POSTERS, AND INVITED TALKS

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### Machine Unlearning

*Bourtole, L. \*, Chandrasekaran, V. \*, Choquette-Choo, C. \*, Jia, H. \*, Travers, A. \*, Zhang, B. \*, Lie, D., Papernot, N.*  
arXiv pre-print. \*Equal contribution. Submitted to IEEE Symposium on Security and Privacy.

### Adversarial Machine Learning: Ensuring privacy and security of ML models and sensitive data.

Presented at RE·WORK Responsible AI Summit 2019.

### A multi-label, dual-output deep neural network for automated bug triaging.

*Choquette-Choo, C., Sheldon, D., Proppe, J., Alphonso-Gibbs, J., Gupta, H.* In Review

International Conference on Machine Learning and Applications 2019. ICMLA 2019 Oral Talk

### 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.* Oral Presentation + Paper

Molecular Quantum Mechanics Conference 2019.

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## EXPERIENCE

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Poster Presentation

### VECTOR INSTITUTE

Toronto, ON

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

(2019 – Present)

- Designing novel black-box membership inference attacks to protect sensitive data used for ML models.
- Quantifying the security, privacy, and overfitting effects of data augmentations in computer vision models.

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

(2019 – Present)

- Developing a Bayesian model with active learning to predict molecular properties and accelerate drug discovery.

### 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, to guarantee user data privacy, 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 an ML bug triager to assign bugs to the appropriate engineers and teams globally.
- 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.
- Defined and analyzed product weaknesses (with VPs) to ensure successful external releases.

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## COMPETITIONS

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Winner of Microsoft Machine Learning Comp. (20 teams); 'The Game', Engineering Comp. (12 teams, \$10,000 prize)

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## PROGRAMMING

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**Proficient Languages:** Python, C, Java, MATLAB

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

**Familiar Languages:** Assembly, Perl, SQL, Elasticsearch, JavaScript, Verilog

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## LEADERSHIP

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*Plan Canada* – Board Advisor and member of Youth Advisory Council

(2014 – 2017)

*FoodSkrap Startup* – CEO and Founder

(2016 – 2017)

*University of Toronto Consulting Association* – Director of Volunteer Consulting Group

(2017 – 2018)

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## ABOUT ME

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**Interests:** avid rock climber, ex-model, ex-pro StarCraft player, cooking enthusiast, French (DELFB1) speaker