

# VINCENT QUENNEVILLE-BÉLAIR, PHD

vincentqb@gmail.com · vincentqb.github.io

GitHub vincentqb · LinkedIn vincentqb

## EXPERIENCE

---

**Machine Learning Scientist.** Facebook AI. 2019-Now

Lead development of the open source PyTorch torchaudio library and optimization module.  
Develop deep learning models and training pipelines for audio and speech recognition.  
Integrate state of the art optimizers and schedulers in the optimization module.  
Build research collaborations between academia and the open source community.

**Machine Learning Scientist.** Amazon. 2017-2019

Generate long-term strategic inventory capacity forecast. Model counterfactual scenarios.  
Optimize supply chain expansion recommendations.  
Build causal impact models to estimate advertising campaign lift. Infer future returns and optimize advertising portfolio.  
Teach machine learning specialization course series on matrix factorization, dimensionality reduction, and recommender systems, at the Amazon Machine Learning University.

**Chu Assistant Professor of Applied Mathematics.** Columbia University. 2015-2017

Model gravitational wave propagation to understand black hole collisions. Create and analyze novel specialized mixed finite element methods to simulate these models numerically.

**Chief Data Scientist.** Vizanda. 2016-2017

Develop web-based software to automatically extract information from structured and unstructured data on the fly. Process the information to programatically generate relevant visualizations and intelligent insights.

## EDUCATION

---

**PhD Applied Mathematics.** University of Minnesota.

NSERC Alexander Graham Bell Canada Graduate Scholarship  
University of Minnesota Doctoral Dissertation Fellowship  
Mentored over 20 teams for international Mathematical Contest in Modeling

**MCS Computer Science.** University of Minnesota.

**MSc Applied Mathematics.** University of Minnesota.

FQRNT Research Scholarship

**BSc Mathematics and Physics.** McGill University, Canada.

Twice meritorious winner in international Mathematical Contest in Modeling  
First class honors

**Technologies.** Python, PyTorch, Scikit-Learn, SQL, Spark, Linux.