Ilia Ilmer, **PhD**

Houston, Texas

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Skills

Programming Languages:	Python (PyTorch, Transformers, Pytorch Lightning, Scikit-Learn, pandas, NumPy), Julia, Maple, C/C++
Scientific Computing:	Machine learning, deep learning, numerical computations, computer algebra
Tools:	Git, Bash and ZSH, SQL, AWS (SageMaker, Athena, CloudFormation), Hadoop, Spark

Work Experience

BILL (former Bill.com) — *Houston, TX, USA*
Sr. Machine Learning Engineer — *Feb 2023 – Present*

- Document processing: develop and extend existing machine learning models for document understanding
- Improved internal document matching engine resulting in increased revenue by over 10 mil monthly

Bill.com — *New York, NY, USA*
Machine Learning Intern — *Summer 2022; Summer 2021*

- Developed end-to-end pipeline for structured document processing using NLP (transformers)
- Analyzed text document pre- and post-processing patterns to maximize product efficacy

Google Summer of Code — *New York, NY, USA*
Intern — *Summer 2021*

- Migrated codebase for parameter identifiability in ODE models to SciML
- Project page: click here

Next Caller, Inc. — *New York, NY, USA*
Software Engineer Intern (Data Science Track) — *May 2020 – Dec 2020*

- Implement unsupervised and semi-supervised learning algorithms in Tensorflow
- Deploy machine learning models using AWS

Projects

Projects

Personal and research projects and open source contributions

- PhD research project: Web-based structural identifiability analyzer, click here
- PhD research project: Parameter estimation package, click here
- Built a numpy-based machine learning library imitating PyTorch (URL: click here)
- Open source contributions: Scikit-Image, Symbolics.jl, StructuralIdentifiability.jl

Machine learning

Kaggle Competitions

- Cloud Segmentation Challenge: click here
- Alaska Image Steganalysis (submitted as a class final project) click here
- Kaggle Ion Switching: click here

Education

Graduate Center, City University of New York — *New York, NY, USA*
PhD in Computer Science — *Sept 2018 – Feb 2023*

University of Calgary — *Calgary, AB, Canada*
MS in Mathematics — *Sept 2016 – July 2018*