

# Ilia Ilmer

Jersey City, New Jersey

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## Skills

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**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

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### Bill.com

New York, NY, USA

MACHINE LEARNING INTERN

June 2022 – present

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

### Bill.com

New York, NY, USA

MACHINE LEARNING INTERN

June 2021 – August 2021

- Built and tested natural language processing (NLP) models for text classification

### Google Summer of Code

New York, NY, USA

INTERN

June 2021 – August 2021

- Migrated codebase for parameter identifiability in ODE models to SciML
- Project page: [github.com/sciml/StructuralIdentifiability.jl](https://github.com/sciml/StructuralIdentifiability.jl)

### 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

### The City College of New York, City University of New York

New York, NY, USA

ADJUNCT LECTURER

Jan. 2020 – May 2022

- **Courses Taught:** Statistics for Computer Science

## Projects

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### Projects

2018 – PRESENT

PERSONAL AND RESEARCH PROJECTS AND OPEN SOURCE CONTRIBUTIONS

- Research project: Web-based structural identifiability analyzer, [click here](#)
- Built a numpy-based machine learning library imitating PyTorch (URL: [click here](#))
- Open source contributions: Scikit-Image (Python), SciML's Symbolics.jl, SciML's StructuralIdentifiability.jl (Julia, one of maintainers)

### Machine learning

2018 – PRESENT

KAGGLE COMPETITIONS

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

## Education

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### Graduate Center, City University of New York

New York, NY, USA

MPHIL IN COMPUTER SCIENCE, PHD CANDIDATE IN COMPUTER SCIENCE

Sept. 2018 – PRESENT

- **Research Interests:** Algorithms and Software for Computer Algebra Systems, Machine Learning and AI.
- **Publications:** [click here](#)
- **Awards:** ISSAC 2021 Best Software Presentation Award
- **Talks:** [click here](#)

### University of Calgary

Calgary, AB, Canada

MS IN MATHEMATICS

Sept. 2016 – July 2018

- **Publications:** [click here](#)