

# Ilia Ilmer

New York, NY

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## Skills

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**Programming Languages:** Python (PyTorch, pandas, scikit-learn, Tensorflow, JAX, numpy, sympy, Flask), Julia, Maple, C/C++  
**Scientific Computing:** Machine learning, deep learning, numerical computations, computer algebra  
**Tools:** Git, Bash and ZSH, SQL, AWS (CloudFormation, CodePipeline, Athena, Cloudwatch, DynamoDB)

## Work Experience

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### Bill.com

MACHINE LEARNING INTERN

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

New York, NY, USA

June 2021 – August 2021

### Google Summer of Code

INTERN

- Migrated codebase for parameter identifiability in ODE models to SciML

New York, NY, USA

June 2021 – August 2021

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

ADJUNCT LECTURER

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

New York, NY, USA

Jan. 2020 – Present

### Next Caller, Inc.

SOFTWARE ENGINEER INTERN (DATA SCIENCE TRACK)

- Implement unsupervised and semi-supervised learning algorithms in Tensorflow
- Deploy machine learning models using AWS
- Contribute implementations to internal data science tools

New York, NY, USA

May 2020 – Dec. 2020

## 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

PHD 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](#)

### Moscow Engineering and Physics Institute

Moscow, Russia

BS IN APPLIED MATHEMATICS AND COMPUTER SCIENCE

Sept. 2012 – July 2016