

# Bartosz Piotrowski

Email: bartoszpiotrowski@post.pl Phone number: +1 646 688 8319 Webpage: <https://bartosz.cc>

## Employment

<b>Member of Technical Staff</b> at Axiom Math	2025/12 – now
<b>Postdoctoral Researcher</b> at Meta FAIR in New York, NY, USA	2025/05 – 2025/12
<b>Postdoctoral Researcher</b> at IDEAS NCBR in Warsaw, Poland	2023/09 – 2025/05
<b>Junior Research Scientist</b> at Czech Institute of Informatics, Robotics and Cybernetics in Prague	2017 – 2023
<b>Internship</b> in Interdisciplinary Centre for Mathematical and Computational Modelling, Warsaw	2015 – 2016

## Education

<b>PhD in Computer Science</b> , defended at Radboud University Nijmegen Thesis: Synergy of Machine Learning and Automated Reasoning Supervisors: Josef Urban, Mikoláš Janota, Herman Geuvers	2017 – 2023
<b>Research visit</b> , Carnegie Mellon University	2022/03 – 2022/09
<b>MSc in Philosophy</b> , University of Warsaw	2014 – 2021
<b>Student exchange</b> , ILLC, University of Amsterdam	2016/09 – 2017/02
<b>MSc in Mathematics</b> , University of Warsaw	2014 – 2016
<b>BSc in Mathematics</b> , University of Warsaw	2011 – 2014

## Technical skills

- **Python** (extensive experience)
- **Ocaml** (intermediate experience)
- **R** (extensive experience)
- **Basic tools**: GNU/Linux, SQL, Git, Latex, Bash

## Teaching experience

- Artificial Intelligence in Theorem Proving
- Introduction to Functional Programming
- Probability Theory and Statistics
- Statistical Data Analysis

## Selected publications

- ProofOptimizer: Training Language Models to Simplify Proofs without Human Demonstrations, with A. Gu, F. Gloeckle, K. Yang, A. Markosyan ICLR 2024
- Magnushammer: A transformer-based approach to premise selection, with M. Mikula, S. Antoniak, S. Tworkowski, A. Jiang, J. Peng Zhou, C. Szegedy, L. Kuciński, P. Miłoś, Y. Wu. ICLR 2024
- Machine-learned premise selection for Lean, with R. Fernández Mir & E. Ayers. TABLEAUX 2023
- Towards learning quantifier instantiation in SMT, with M. Janota & J. Piepenbroeck. SAT 2022
- ProofNet: A benchmark for autoformalizing and formally proving undergraduate-level mathematics problems, with Z. Azerbayev & J. Avigad. MATH-AI@NeurIPS 2022
- Stateful premise selection by recurrent neural networks, with J. Urban. LPAR 2020
- ATPboost: Learning premise selection in binary setting with ATP feedback, with J. Urban. IJCAR 2018

## Grants & awards

- **Research grant** (28 000 EUR) from the National Science Centre in Poland for years 2019–2022
- **Research visit** in University of Oxford, applying automated theorem proving techniques for databases
- **Research visit** in University of Innsbruck, applying deep learning for automated theorem proving
- **Finalist** of the 62nd Polish National Mathematical Olympiad (April 2011)