Maciej Zięba

Home: +48 795419427
email: maciejzieba98@gmail.com
in: linkedin.com/in/maciej-zieba

Citizenship: Poland
Date of Birth: October 10, 1998
Place of residence: Niepołomice $\longleftrightarrow$ Cracow, Poland

Experiance:

- Mathematician
  Synthetify & Invariant · Part-time
  Sep 2021 - Present

  In both projects, I use my mathematical abilities to create financial models in the Cryptocurrency sector. I work on topics such as AMMs, Bonds, Farms, Active Liquidity Management, and so on.

- Mathematics Tutor
  Self-employed
  Dec 2016 - Present

  I teach math to students of various levels of comprehension. I tutored $\gg 100$ individuals over the tutoring time.

- Tutor - algebra and calculus
  Pedagogical University of Cracow · Freelance
  Oct 2021 - Jun 2022

  I taught 90 hours of basic calculus and linear algebra to first-year students. Later on, I worked as a linear algebra instructor.

- Mathematics Teacher
  Galileusz Bochnia · Freelance
  Jan 2020 - Jun 2021

  I prepared students for math examinations at the elementary, high school, and university levels, as well as teaching current school curriculum.

Education:

- Doctor of Philosophy, Mathematics at Pedagogical University of Cracow, 2021 - 2026.

  I produced various research articles throughout my bachelor's degree, which allowed me to go straight to doctoral school.

- Bachelor of Science, Mathematics at Pedagogical University of Cracow, 2018 - 2021.
  Individual Curiculum of Studies (Commutative Algebra and Algebraic Geometry)

IT & programming:
Rust, Python, LaTeX, MS Office, Markdown, Maple

Research interests:

- Cryptocurrency, Application of mathematics in decentralized finances.

- Algebraic Curves, Commutative Algebra (symbolic powers of ideals, containment problems), Combinatorics (curve arrangements, hyperplane arrangements, graphs).

Publications List:
Publicated:

1. Generic projections of the H_4 configuration of points
   Advances in Applied Mathematics
   Sep 15, 2022
   Show publication

2. On Yoshinaga's arrangement of lines and the containment problem
   BULLETIN MATHÉMATIQUE de la Société des Sciences Mathématiques de Roumanie
   May 12, 2021
   Show publication

3. About specific hyperbolas associated with a triangle
   Prace Koła Matematyków Uniwersytetu Pedagogicznego w Krakowie
   Jan 18, 2020
   Show publication

4. A family of hyperbolas associated to a triangle
   Analytic and Algebraic Geometry 3, Łódź University Press
   Nov 1, 2019
   Show publication

Selected talks:

- *On H_4 configuration of points in $\mathbb{P}^3$.*
  Effective Methods in Algebraic Geometry, Cracow (Poland), 20-24 June 2022

- *Cayley-Bacharach Theorem.*
  Pidstryhach Readings 2020, Lviv (Ukraine), 26 - 28 May 2020.

- *On Yoshinaga's arrangement of lines and the containment problem.*
  Geometry, Algebra and Combinatorics of Moduli Spaces and Configurations IV, Toblach (Italy), 23 - 29 February 2020.

- *Conics associated with a triangle.*
  Pidstryhach Readings 2019, Lviv (Ukraine), 27 - 29 May 2019.

Projects:

- European Networking of STEAME School Students for Exchange and Co-creation.

  Creation and management of STEAME students platform.

Awards, Scholarship, Honors:

- Rector Scholarship for the best students, during all academic years.

Grants:

- Najlepsi z Najlepszych 4.0 (The best from the best (students) 4.0), scientific grant for the best under-graduate students, Ministry of Science and Higher Education, received in October 2019 (duration of the support – one academic year).

Hobbies: inline skating · travels · problem solving