

Ivana Bocevska

Curriculum Vitae

TU Wien Informatics, Vienna Austria

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in www.linkedin.com/in/ivana-bocevska

Nationality - Macedonian

Education

- 2025–present **PhD-Student, TU Vienna**
Doctoral School of Automated Reasoning, FORSYTE Group
- 2023–2025 **Master in Logic and Computation, TU Vienna, GPA 1.0** (highest grade)
Thesis: Extending Game-Theoretic Security of Blockchain Protocols with Compositional Reasoning and Conditional Actions
- 2019–2023 **BSc Software and Information Engineering, TU Vienna, GPA 1.1** (highest grade 1.0)
Thesis: Gentzen-type Refutation Systems for Connexive Logics

Experience

- 03.2025– **Research Internship, National Institute of Informatics**, Tokyo, Japan
07.2025 Research Topic: Lagrangian-based duality for quantified SMT solving.
- 02.2024– **Research Assistant, TU Vienna, Institute of Logic and Computation**, Vienna, Austria
02.2025 Research Topic: Compositionality Techniques for improved scalability of the game-theoretic analysis of blockchain protocols.
- 07.2021– **Solution Engineer, BOC Group**, Vienna, Austria
03.2025 Responsibilities: development of tailored solutions for the customers, mainly in the financial industry; supporting customers in regards of technical questions; active contribution in the product development of the company's tool suite, consulting, involved in end-to-end solution development.

Honors and Awards

- 12.2025 Merit-Based Scholarship – Vienna University of Technology (1,000 EUR)
- 12.2024 **Siemens Award for Excellence** – Vienna University of Technology & Siemens AG Austria (1,000 EUR)
- 06.2024 **Helmut Veith Stipend** – Vienna Center for Logic and Algorithms (6,000 EUR)
- 12.2023 **Siemens Award for Excellence** – Vienna University of Technology & Siemens AG Austria (1,000 EUR)
- 12.2020 **Siemens Award for Excellence** – Vienna University of Technology & Siemens AG Austria (1,000 EUR)
- 04.2019 **Silver Medal Infomatrix World Finals** – Informatix International Computer Science Project Olympiad in Romania
- 04.2017 **Bronze Medal Infomatrix World Finals** – Informatix International Computer Science Project Olympiad in Romania
- 03.2019 3rd Place National Computer Science Competition in North Macedonia
- 03.2018 3rd Place National Computer Science Competition in North Macedonia
- 03.2018 3rd Place National Mathematics Competition in North Macedonia

Publications*

- 2025 **Divide and Conquer: A Compositional Approach to Game-Theoretic Security**
Ivana Bocevska, Anja Petković Komel, Laura Kovács, Sophie Rain, Michael Rawson
ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications, **OOPSLA'25**, doi.
- 2026 **Lagrangian-Based Duality for Quantified SMT Algorithms**
Ivana Bocevska, Takeshi Tsukada, Hiroshi Unno, Oded Padon, Sharon Shoham
under submission
- * Following the global norms of Mathematics and Theoretical Computer Science, author names appear in alphabetical order. In Computer Science, conference papers are the primary peer-reviewed venue, often more prestigious than journal articles.

Teaching Experience**

Summer term **Teaching Assistant, Vienna University of Technology**

- 2026 Courses:
- Logic and Reasoning in Computer Science

Winter term **Teaching Assistant, Vienna University of Technology**

- 2023 Courses:
- Introduction to Knowledge Based Systems

Summer term **Teaching Assistant, Vienna University of Technology**

- 2023 Courses:
- Introduction to Knowledge Based Systems
 - Introduction to Artificial Intelligence

Winter term **Teaching Assistant, Vienna University of Technology**

- 2022 Courses:
- Introduction to Knowledge Based Systems
 - Declarative Problem Solving

Summer term **Teaching Assistant, Vienna University of Technology**

- 2022 Courses:
- Introduction to Artificial Intelligence
 - Formal Modeling
 - Introduction to Programming 1

Winter term **Teaching Assistant, Vienna University of Technology**

- 2021 Courses:
- Theoretical Computer Science and Logic
 - Introduction to Programming 1

Summer term **Teaching Assistant, Vienna University of Technology**

- 2021 Courses:
- Formal Modeling
 - Introduction to Programming 1

Winter term **Teaching Assistant, Vienna University of Technology**

- 2020 Courses:
- Introduction to Programming 1

Summer term **Teaching Assistant, Vienna University of Technology**

- 2020 Courses:
- Introduction to Programming 1

** Undergraduate and graduate courses from the curricula Software & Information Engineering and Logic and Computation. Responsibilities: correcting exams/exercise sheets, contribution to the creation of exams, exercise sheets, and study materials, consultation hours for students, performing oral examinations.

Invited & Conference Talks

- 10.2025 **Automated Game-Theoretic Security Analysis of Blockchain Protocols**
12th Workshop on Formal Reasoning in Distributed Algorithms, **FRIDA'25**, Berlin, Germany
Recording: [link](#)
- 10.2025 **Divide and Conquer: A Compositional Approach to Game-Theoretic Security**
ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications, **OOPSLA'25**, Singapore
Recording: [link](#)

Research Visits

- 03.2025– National Institute of Informatics (NII), Tokyo, Japan
07.2025

Conferences & Workshops Attended

- OOPSLA'25 ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications, OOSPLA'25, Singapore
- FRIDA'25 12th Workshop on Formal Reasoning in Distributed Algorithms, FRIDA'25, Berlin, Germany
- MOD'25 Marktoberdorf Summer School on Specification and Verification for Secure Cyberspace, Marktoberdorf, Germany

Languages

Full professional proficiency

- English
- German

Native proficiency

- Macedonian

Elementary proficiency

- Bulgarian
- Turkish

Social Engagement & Volunteering

- 2026 Representative of graduate students in “Women in Informatics”-initiative and strategy building, TU Vienna
- 2026 Mentoring and organization of Girls Hackathon in cooperation with TU Vienna and City of Vienna
- 2025-2026 CS-unplugged Workshops for young children
- 2022 Workshops for young female students, “Algorithmen Denken Anders - Tagebuch der Informatikerin”-initiative, Vienna Center for Logic and Algorithms
- 2021 Speedmentoring for young female students, “Algorithmen Denken Anders - Tagebuch der Informatikerin”-initiative, Vienna Center for Logic and Algorithms
- 2017 Voluntary work at Austrian Honorary Consulate in Bitola, North Macedonia
- 2017 Voluntary work at Society for Macedonian-German Friendship and Cooperation in Bitola, North Macedonia