Paweł Mateusz Bytner

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EDUCATION

COMPLETED STUDIES

2014 - 2016	**Course**: Mathematics (Matematyka), Master degree; **Academy**: University od Gdańsk, Faculty of Mathematics, Physics and Informatics, **Supervisor**: prof. UG, dr hab. Jarosław Pykacz, **Seminar subject**: Game theory **Thesis**: Równowagi Berge'a w strategiach czystych oraz mieszanych **Final grade**: 5 (*bardzo dobry*), 2-5 scale
2011 - 2014	**Course**: Mathematics, Bachelor degree; **Academy**: University od Gdańsk, Faculty of Mathematics, Physics and Informatics, **Supervisor**: dr Rafał Lutowski **Seminar subject**: Geometry and groups **Final grade**: 4+ (*dobry plus*), 2-5 scale

OTHER STUDIES

2023-2025	**Course**: Mathematics, **Academy**: University od Gdańsk, Szkoła Doktorska Nauk Ścisłych i Przyrodniczych;
2018-2020	**Course**: Interdisciplinary Doctoral Studies in Mathematical Modeling, **Academy**: University od Gdańsk, Faculty of Mathematics, Physics and Informatics;
2016-2017	**Course**: Środowiskowe Studia Doktoranckie z Matematyki i Informatyki, **Academy**: University od Gdańsk, Faculty of Mathematics, Physics and Informatics;

ATTENDED ELECTIVES

Bachelor studies

- Work psychology
- Selected topics in philosophy of mathematics
- Number theory
- Real functions
- Actuarial mathematics
- Set theory

- Combinatorics
- Partial differential equations
- Galois theory

Master's studies

- Recurrence equations
- Elements of game theory
- Mathematical software packages (Wolfram Mathematica)
- Functional analysis II
- Representation theory
- Algebraic topology
- Topological games
- Selected topics in game theory

Doctoral studies

- Lie groups
- Knot theory

SCIENTIFIC PUBLICATIONS AND CONFERENCE PRESENTATIONS

2020	**Publication**: Berge Equilibria in n-person 2-strategy games
	Journal: Games
	Authors: P. Sawicki, J. Pykacz, P. Bytner
2019	**Publication**: Example of a Finite Game with No Berge Equilibria at All
	Journal: International Game Theory Review
	Authors: J. Pykacz, P. Bytner, P. Frąckiewicz
2017	**Presentation**: Berge equilibria in finite games
	Conference: 2nd International Conference in Mathematical Modelling University od Gdańsk, Faculty of Mathematics, Physics and Informatics;

EXPERIENCE

EMPLOYMENT

Since 2017	**Position**: Academic teacher
	Employer: WSB Merito University Gdańsk
	Responsibilities: Preparing and conducting lectures, exercises and laboratories, as well as consultations and examination of students (in Polish and English), in the fields of Computer Science, Multimedia and Graphics, Psychology, Managment
	Subjects of conducted classes: Algorithms and data structures, Calculus, Desktop applications development, Discrete mathematics, Linear algebra, Mathematics, Object-oriented programming, Probability theory, Programming basics, Statistics, Web design, Web app development

Software: Krita, Git (Tortoise Git, GitHub), Google Chrom developer tools, Google Docs and Forms, MS Office (Excel, Outlook, Teams), MS Visual Studio, Notepad++,

Technologies: ASP.NET, CSS, C#, HTML, JavaScript, PowerShell, PHP, Python, Windows Presentation Foundation

2017-2018	**Position**: Advisor
	Employer: Geoban S.A.
	Responsibilities: Back office work for Santander Bank for the British market. Document verification, transaction approval, opening and closing accounts.
	Software: MS Access, MS Excel, MS Outlook
2017	**Position**: Technical support consultant,
	Employer: Vectra S.A.,
	Responsibilities: Remote technical support for customers with internet connection and cable TV issues. Reporting network failures and assigning repairs to technicians based on customer reports and network monitoring.
2017	**Position**: Tutor, lecturer
	Employer: Centrum edukacyjne Galileusz Sopot
	Responsibilities: Conducting tutoring sessions and group classes for primary- to highschool student in mathematics, programming (Scratch, C++), web development (HTML, CSS, JavaScript), Excel usage, and computer graphics (GIMP).

INTERNSHIP AND ACTIVITIES

2016-2019	**Role**: Teaching practices during PhD studies at University of Gdańsk
	Responsibilities: Teaching mathematics on Chemistry, Chemical business and Spatial planning courses
2011 - 2016	**Role**: Club member and Vice-President **at** *Koło Naukowe Matematyków Uniwersytetu Gdańskiego* (University of Gdańsk Mathematicians' Scientific Club),
	Activities: Conducting workshops, popular science lectures, and presentations on game theory, mathematical analysis, and linear algebra. Participating in the organization of the *Liga Matematyczna* (Mathematics League) and events such as faculty open days.

OTHER EXPERIENCE

2020	**Role**: Freelancer, full-stack webdev
	Client: Fundacja Kontent
	Subject of the contract: Web page with custom Content Managment System for literary journal
	Applied technologies and solutions: HTML, CSS, JavaScript, JSON, PHP, SQL Semantic HTML, CSS Grid and Flexbox, responsive layout, AJAX, PDO interface,

| od 2011 | **Role**: Freelancer, tutor |
| | Tutoring for students in the following subjects: Algebra, Calculus, Linear algebra with geometry, Mathematical physics, Measure theory, Programming and Algorithms and data structures (C, C++, Pascal languages), Topology |

SKILLS

- **Languages**: Polish (native), English (B2+)
- Didactics
- **Mathematics and science**: wide range of knowledge in mathematics and its applications in physics, chemistry and social sciences
- Work in Windows 10 operating system
- **Office software**: Google Docs, LibreOffice, MS Office
- **Graphics software**: Krita, Inkscape
- **Programming**: procedural, functional and object-oriented
- **Programming and markup languages**: C#, CSS, HTML, JavaScript, JSON, LaTeX, Markdown, XML, XAML, YAML
- **Frameworks**: ASP.NET, Windows Presentation Foundation
- **Other software**: Git (Tortoise Git), MS Visual Studio, Notepad++, Chrome webdev tools

PAST OR MINOR EXPERIENCE:

- **Work in operating systems**: Linux (Mandriva, Ubuntu), Windows (98, XP, 7)
- **Graphics software**: Gimp, SketchUp
- **Programming languages**: C, C++, Logo, Pascal, PHP, Python, PowerShell, Scratch, SQL, Wolfram Language
- **Specialized software**: Wolfram Mathematica
- **Other software**: WinSCP
- Customer service

HOBBY AND INTERESTS

- Card, RPG and strategy games
- Linguistics
- Fantasy literature
- Macrame
- Game modding, design and programming
- Neural networks, generative and language models
- Wine brewing
- Wikipedia crawling