

ALTIFANI RIZKY HAYYU

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Materials Scientist and Condensed Matter Physicist with extensive experience in advanced materials research, characterization, & testing. Expertise includes semiconductors, aluminum alloys, & rare-earth intermetallics, with hands-on experience in casting, X-ray diffraction, PPMS, & microhardness testing. Skilled in experimental design, data analysis & microstructure–property relationships.

PROFESSIONAL EXPERIENCE

LTIMintree Limited (SA), Kraków, PL

Engineer – Cloud & Infra Management (Azure Networking, Microsoft BU)

Nov 2023 – Present

- Provide L3/L7 Microsoft Azure Networking troubleshooting and technical support to global business customers via phone, web, and chat, ensuring fast resolutions and adherence to high SLA standards.
- Manage the customer experience from issue identification to resolution, communicating proactively and consistently exceeding KPIs to boost team efficiency and satisfaction.
- Collaborate closely with Subject Matter Experts, Engineering/Product Groups, Management, and cross-functional teams (Billing, Kubernetes, AADDs, Storage, Monitor, App Service, etc.) as well as external platforms (Cisco, AWS, Broadcom, Fortinet, etc.) to resolve complex issues.
- Document troubleshooting processes, perform Root Cause Analysis (RCA), and provide detailed technical reports to improve future support efficiency and customer satisfaction.

Cisco Systems Poland Sp. z o.o., Kraków, PL

Incubator Network Engineer (10.5 Program)

Mar 2023 – Jun 2023

- Completed hands-on CCNA: Introduction to Networks; Switching, Routing, & Wireless Essentials; Enterprise Networking, Security and Automation; DevNet Associate
- Acquired practical skills in Python programming and network automation to enhance operational efficiency.
- Strengthened technical support capabilities and customer-facing communication skills through hands-on experience.

AstraZeneca Pharma Poland Sp. z o.o., Warsaw, PL

Student Ambassador

Nov 2022 – Jun 2023

- Engaged in a mentorship program, including statistical programming for oncology and health research.
- Proposed and executed activities aimed at promoting the organization among the student community.

Politecnico di Torino, Alessandria, IT

Materials Engineering Research Intern

Mar 2019 – May 2019

- Conducted scientific research “Study of Castings Based on Functionally Graded Materials (FGM) of Aluminum Alloys” using gravity casting, microhardness tester, metallographic microscope, QWin and ImageJ software for automotive manufacturing and production application.

Universitas Indonesia, Depok, ID

Advanced Physics Laboratory Assistant

Feb 2016 – Jun 2016

- Instructed second-year physics undergraduate students in Advanced Physics Laboratory Course.
- Conducted assessments of students' performance, including grading assignments, projects, and lab work.

EDUCATION

Jagiellonian University, Kraków, PL

PhD (All but dissertation) in Physics– Experimental Condensed Matter (Magnetic properties)

Sep 2019 – Aug 2025

- Conducted research on magnetic research on rare-earth intermetallics, including the magnetocaloric effect for cooling application. Employed PPMS (Vibrating Sample Magnetometer, Heat Capacity Analysis), X-ray techniques. Supervised by dr hab. Stanisław Baran, prof. UJ (Magnetic research group, Department of Solid State Physics <https://zfcs.if.uj.edu.pl/magnetic-research>).
- Taught basic physics to undergraduates and high school students.
- Awarded university grants (TD UJ Competition for Co-financing the Activities of PhD students 2023; Visibility and Mobility Module, ID.UJ 2022; JU MNS Grant 2022; JU MNS Grant 2021).
- Awarded a Doctoral School Scholarship (Oct 2019–Sept 2023).
- GPA 4.47/5.00

AGH University of Kraków, Kraków, PL

MSc in Materials Engineering – Modern Materials, Design, and Application

Mar 2018 – Sep 2019

- Conducted research on Functionally Graded Materials (FGM) by casting process of aluminum alloys for automotive applications as the MSc thesis topic. Supervised by Joanna Karwan-Baczewska, dr hab. inż., prof. AGH (<https://www.knmimn.agh.edu.pl/en>).
- Volunteered at international conferences.
- Presented research findings at Polish national conferences.
- Awarded the Ignacy Łukasiewicz Scholarship for Polish language preparatory courses and MSc study.
- CGPA 4.59/5.00

University of Indonesia, Depok, ID

BSc in Physics – Theoretical Condensed Matter (Electronic properties)

Sep 2013 – Aug 2017

- Conducted research “Study of band structure renormalization of tight-binding model semiconductor by incorporating GW self-energy” using object-oriented Fortran parallel programming – Open MPI funded by PITTA - International Indexed Publications for UI Student Final Assignments Grant, 2015-2017 as BSc thesis topic. Supervised by Muhammad Aziz Majidi, Ph.D. Assoc. Professor (TQCM– Theory and Computation of Quantum Materials Group <https://physics.ui.ac.id/portfolio/tcmp/>)
- Completed a research internship program at Nano Center Indonesia about synthesis of nanomaterials using top down and bottom-up method.
- Assisted in advanced physics labs for undergraduate students.
- Received PPA and LAZNAS BSM scholarships for BSc degree.
- CGPA 3.24/4.00

TECHNICAL SKILLS

- **Programming & Data Analysis:** Python, SQL, EDA, data visualization, machine learning basics, Fortran, MPI
- **Scientific Software:** FullProf Suite (Rietveld refinement), XMGace, ImageJ, QWin, OriginLab, MATLAB basics
- **Instruments & Experimental Techniques:** PPMS (VSM, heat capacity), X-ray diffraction (XRD), metallographic microscopy, microhardness tester, gravity casting, mechanical testing / structural mechanics, neutron diffraction, DOS and band structure calculations
- **Tools:** Microsoft Office, LaTeX, Git/GitHub, Linux (Ubuntu), Windows
- **Languages:** Indonesian (native), English (C1), Polish (B1)
- **Certifications:** [Microsoft Azure AI Fundamentals \(AI-900\)](#), [Microsoft Azure Fundamentals \(AZ-900\)](#)

PUBLICATIONS

- AR Hayyu, S Baran, A Deptuch, A Szytuła, [Crystal structure, magnetic properties and magnetocaloric performance of RE₅Rh₂In₄ \(RE = Gd-Tm\) compounds](#), arXiv preprint arXiv:2505.14831 (2025)
- AR Hayyu, S Baran, A Szytuła, [Magnetocaloric properties of RE₅Pd₂In₄ \(RE= Tb-Tm\) compounds with multiple magnetic sublattices](#), Physica B: Condensed Matter 710 (2025), 417184
- AR Hayyu, S Baran, A Szytuła, K Berent, A Deptuch, [Characterization of magnetic properties, including magnetocaloric effect, of RE₅Pt₂In₄ \(RE= Gd-Tm\) compounds](#), Journal of Alloys and Compounds 1001 (2024), 175054
- A Deptuch, S Baran, L Keller, AR Hayyu, A Szytuła, [Magnetic structures in R₅Pt₂In₄ \(R= Tb–Tm\) investigated by neutron powder diffraction](#), Structural Science 80 (4) (2024)
- S Baran, AR Hayyu, Y Tyvanchuk, A Szytuła, [Magnetocaloric performance of RE₁₁Co₄In₉ \(RE = Tb, Er\)](#), Phase Transitions 96 (2) (2023), 115-125
- AR Hayyu, A Azhar, MA Majidi, [Study of band structure renormalization of tight-binding model semiconductor by incorporating GW self-energy](#), AIP Conference Proceedings 2023 (1), 020053

LIST OF PRESENTATIONS

1. 23rd International Conference on Solid Compounds of Transition Elements (SCTE), Bordeaux, France, 14–17 June 2022 - poster presentation

2. XII Ogólnopolska Konferencja Rozpraszanie neutronów i metody komplementarne w badaniach faz skondensowanych, Chlewiska k. Siedlec, Poland, 19–23 June 2022 - oral presentation
3. XVII Katowicko-Krakowskie Seminarium Fizyka Fazy Skondensowanej, Chorzow, Poland, 3 July 2022 - poster and oral presentation
4. 24th JCNS (Julich Centre for Neutron Science) Laboratory Course, Julich, Germany, 5–16 September 2022 - poster presentation
5. 17th Physics of Magnetism 2023, Faculty of Physics Adam Mickiewicz University and Institute of Molecular Physics Polish Academy of Sciences, Poznan, Poland, 26–30 June 2023 - oral presentation
6. XVIII Katowicko-Krakowskie Seminarium Fizyki Fazy Skondensowanej, the University of Silesia and the Jagiellonian University, Krakow, Poland, 3 July 2023 - poster presentation
7. 4th PSI Condensed Matter Summer Camp, Paul Scherrer Institut, Zuz, Switzerland, 6–11 August 2023 - poster presentation
8. XV International Conference on Crystal Chemistry of Intermetallic Compounds, Ivan Franko National University of Lviv, Ukraine, 25–27 September 2023 – oral presentation
9. XIII Rozpraszanie Neutronów i Metody Komplementarne w badaniach Materii 2024, Chlewiska k. Siedlec, Poland, 9–13 June 2024 - oral presentation
10. 24th International Conference on Solid Compounds of Transition Elements (SCTE) 2024, Prague, Czech Republic, 17–21 June 2024 - oral presentation
11. NanoGenTools Spring School: Applications and Safety Assessment of Nanomaterials New Technological Approaches and Regulatory Aspects, Alessandria, Italy, 2019 – oral presentation
12. International Symposium on Current Progress in Mathematics and Sciences (ISCPMS), Bali, Indonesia, 2017 – oral presentation
13. The 9th Conference of the Indonesian Student Association in Korea (CISAK), Seoul, South Korea, 2016 – oral presentation

COURSES

- How To Become A Better Scientist And Teacher – NAWA SPINAKE Summer School, Uniwersytet Szczeciński (2023)
- Excel Fullstack Bootcamp, Myskill (2023)
- Introduction to Data & SQL, Code First Girls (2023)
- JCNS Neutron Laboratory Course, Forschungszentrum Jülich (2022)
- Data Science & ML Bootcamp, Fullstack Bangalore ID (2022)
- Quant Finance Lectures: Co-developed HSBC lecture series on pricing, risk, and numerical methods (2019, 2022)
- Polish Language, MCK PK (Międzynarodowe Centrum Kształcenia Politechniki Krakowskiej) (2017)

PROJECTS

Additional Projects & Experience

- Schoters, Indonesia (Jul 2021–Jan 2025): Mentored 100+ clients on study-abroad applications
- Self-employed (Jan 2019–Jul 2024): Indonesian language teacher for international learners
- Brainly, Poland (May 2018–Mar 2022): Developed 2600+ STEM materials

Personal Projects

- Customer Churn Prediction: Built ML model (EDA, visualization, modeling) → [GitHub](#)
- Image Classifier: Deployed Streamlit app (cat/dog/panda) → [GitHub](#)

ACTIVITIES

Toastmasters Kraków Public Speaking Club – Vice President of Public Relations

Jan – Jun 2022

- Led PR strategy; completed “Effective Coaching” pathway and communication/leadership modules.

Indonesian Student Association in Poland (PPI Polandia) – President

Nov 2020 – Nov 2021

- Led 32-member team and 150+ members, founded 5 branches, and coordinated cultural and embassy-linked events.

I agree to the processing of personal data provided in this document for realising the recruitment process pursuant to the Personal Data Protection Act of 10 May 2018 (Journal of Laws 2018, item 1000) and in agreement with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).