# Qualifications of the individual for defining area of expertise

Name/ Birth year	Krzysztof Rzecki / 1978
Title (year degree	D. Sc. in Information and Communication Technology (2022) / associate professor
obtained) / Prof.	Ph. D. in Computer Science (2009) / assistant professor
status	M. Sc. in Marketing and Management (2004)
	M. Sc. Eng. in Computer Science (2002)
Address	AGH University of Science and Technology,
	30, Mickiewicza Ave. 30-059 Krakow, Poland
	krz@agh.edu.pl, <a href="http://rzecki.pl">http://rzecki.pl</a>
	ResearcherID: AAV-3862-2020 ORCID: 0000-0002-6834-2344
Area of expertise	natural language processing
	cybersecurity & biometry
Dalamant (hart)	machine & deep learning
Relevant (best) publications	<b>1.</b> Seth D. Axen, Mateusz Baran, Ronny Bergmann, and Krzysztof Rzecki. 2023. Manifolds.jl: An Extensible Julia Framework for Data Analysis on Manifolds. ACM Trans. Math. Softw. 49, 4, Article 33 (December 2023). <b>IF = 2.786</b>
	<b>2.</b> Baran M, et al., Application of Conditional Generative Adversarial Networks to Efficiently Generate Photon Phase Space in Medical Linear Accelerators of Different Primary Beam Parameters. Applied Sciences. 2023. <b>IF</b> = <b>2.7</b>
	<b>3.</b> P. Homola, et al., Observation of large scale precursor correlations between cosmic rays and earthquakes with a periodicity similar to the solar cycle, Journal of Atmospheric and Solar-Terrestrial Physics, Volume 247, 2023. <b>IF = 2.119</b>
	<b>4.</b> M. Baran, et al., "Isodoses—a set theory-based patient-specific QA measure to compare planned and delivered isodose distributions in photon radiotherapy", <i>Strahlentherapie und Onkologie</i> , vol. 198, no. 9, 2022. <b>IF = 4.033</b>
	<b>5.</b> M. Baran, et al., "Are gamma passing rate and dose–volume histogram QA metrics correlated?", <i>Medical Physics</i> , vol. 48, no. 9, 2021. <b>IF</b> = <b>4.071</b>
	<b>6.</b> M. Piekarczyk, et al., "CNN-based classifier as an offline trigger for the CREDO experiment", <i>Sensors</i> , vol. 21, no. 14, 2021. <b>IF</b> = <b>3.735</b>
	<b>7.</b> O. Bar, et al., "Zernike Moment Based Classification of Cosmic Ray Candidate Hits from CMOS Sensors", <i>Sensors</i> , vol. 21, no. 22, 2021. <b>IF</b> = <b>3.735</b>
	<b>8.</b> K. Rzecki, et al., "Fully automated algorithm for the detection of bone marrow oedema lesions in patients with axial spondyloarthritis - Feasibility study", Biocybernetics and Biomedical Engineering, vol. 41, no. 2, 2021. <b>IF</b> = <b>2.537</b>
	<b>9.</b> K. Rzecki and M. Baran, "Application of Elastic Shape Analysis to User Authentication and Identification", <i>IEEE Transactions on Emerging Topics in Computing</i> , 2021. (early access). <b>IF = 6.043</b>
	<b>10.</b> K. Rzecki, "Classification Algorithm for Person Identification and Gesture Recognition Based on Hand Gestures with Small Training Sets", <i>Sensors</i> , vol. 20, no. 24, 2020. <b>IF = 3.275</b>
Publications	Google Scholar: Publications: 88, Citations: 558, H-index: 13
statistics:	<b>Web of Science</b> : Publications: 42, Citations: 342, H-index: 9
Other	didactic responsibilities
	2002 – 2025 Lecturer at CUT and AGH UST:
	Algorithms and data structures
	Network services programming
	Natural language processing
	Security of computer systems nad networks
	Service-oriented architectures

#### Operating systems

Supervision of over 90 M.Sc. and B.Sc. students with their thesis/diploma.

### professional recognitions

- 2021 2023 R&D Leader in a project "Development of cost-optimizing solutions in the field of production automation and quality control used in the production of laminate tubes", POIR.01.01.01-00-1296/20.
- 2021 2023 Member of management team in a project "Reconfigurable scintillator based full 3D detector for evaluating patient-specific dose distribution", POIR.04.04.00-00-15E5/18.
- 2018 2019 Participant of the project "A phantom for exploitation tests of medical radiotherapy devices", POIR.04.01.04-00-0014/16.
- 2009 2019 Assistant Professor (2002-2009 Assistant) of Computer Science in Institute of Telecomputing, Faculty of Mathematics Physics and Computer Science, Cracow University of Technology.
- 2016-2017 Participant of the project "Develop a system supporting bronchofiberoscope navigation within a peripheral bronchial tree", PBS3/A9/31/2015.
- Since 2015 Co-founder and Shareholder/Director of Live-Docs Sp. z o.o., http://live-docs.com.
- 2013 Leader of the R&D project "Context Data Management" for Orange Labs Poland.
- 2012-2013 Participant of the project "Developing innovative integrated platform for the financial area", UDA-POIG.01.04.00-12-106/12-00.
- 2012 Leader of the R&D project "Context Awareness Stack The New Approach for Context Data Structure" for Orange Labs Poland.
- 2012 Participant of the project "Development of an innovative utility and maintenance platform", VSoft SA, UDA-POIG.01.04.00-12-075/11-00.
- 2009-2011 Participant of the project "Asynchronous Agent System for Monitoring Communication and System States Based on the SOA Paradigm", IPI PAN, POIG.01.03.01-00-008/08, 2009-2013.
- 2011 Participant of the project "User interface based on natural gestures for exploration of virtual 3D spaces", IITiS PAN, NN516405137.
- 2004-2011 Leader of Software Department in CCNS SA in Cracow:
- 2000-2004 One year long internship in Siemens AG/München/Germany.

## open source projects

- 2006-2007 K.Rzecki et al., RFC 5222 contribution, "ECRIT Emergency Context Resolution with Internet Technologies", with Nokia-Siemens-Networks AG, http://ecrit.sourceforge.net/.
- 2005-2006 K.Rzecki et al., RFC 5106 contribution, "EAP-IKEv2 Extensible Authentication Protocol with Internet Key Exchange Protocol version 2", with Siemens AG, http://eap-ikev2.sourceforge.net/.

#### certificates

- TOP 500 Innovators Program, UC Berkeley, CA/USA, 2015.
- ITIL Foundation, APMG-International, 2013.
- PRINCE2 Foundation, APMG-International, 2011.