

**Candidate supervisor's information summary form**  
 maximum 2 pages – it should be a summary of most important achievements

Name and surname, degree, title: <b>Bartosz Świderski</b> , D.Sc., Prof. SGGW (Warsaw Uni. Life Sc.)	
Discipline/ disciplines of science	Information and communication technology
Professional development (degrees and titles) in chronological order	<p><b>M.Sc.</b> – computer science and econometrics (University of Lodz) - <b>2002</b></p> <p><b>Ph.D.</b> – signal processing (Warsaw University of Technology) - <b>2007</b></p> <p><b>D.Sc.</b> - biocybernetics and biomedical engineering, specialization: artificial intelligence (Warsaw University of Technology) - <b>2018</b></p>
Most important publications/patens over the last 3 years (maximum 10)	<ol style="list-style-type: none"> <li>1. "Random CNN structure–tool to increase generalization ability in deep learning", <b>B. Świderski</b>, S. Osowski, G. Gwardys, J. Kurek, M. Słowińska, I. Ługowska, EURASIP Journal on Image and Video Processing, 2022</li> <li>2. "Random Deep Neural Network for Melanoma Recognition", <b>B. Świderski</b>, S. Osowski, P. Olszewski, Ł. Gielata, M. Słowińska, I. Ługowska, International Joint Conference on Neural Networks (IJCNN), 2021</li> <li>3. "Deep neural system for supporting tumor recognition of mammograms using modified GAN", <b>B. Świderski</b>, Ł. Gielata, P. Olszewski, S. Osowski, M. Kołodziej, Expert Systems with Applications, 164, 113968, <b>2021</b></li> <li>4. "Application of Siamese Networks to the Recognition of the Drill Wear State Based on Images of Drilled Holes", J. Kurek, I. Antoniuk, <b>B. Świderski</b>, A. Jegorowa, M. Bukowski, Sensors 20 (23), 6978, <b>2020</b></li> <li>5. "Context-Based Segmentation of the Longissimus Muscle in Beef with a Deep Neural Network", K. Talacha, <b>B. Świderski</b>, J. Kurek, M. Kruk, A. Półtorak, L. J. Chmielewski, G. Wieczorek, I. Antoniuk, J. Pach, A. Orłowski, Machine Graphics and Vision, 28, <b>2019</b></li> <li>6. "Data Augmentation Techniques for Transfer Learning Improvement in Drill Wear Classification Using Convolutional Neural Network", J. Kurek, I. Antoniuk, J. Górski, A. Jegorowa, <b>B. Świderski</b>, M. Kruk, G. Wieczorek, J. Pach, A. Orłowski, J. Aleksiejuk-Gawron, Machine Graphics &amp; Vision, 28, <b>2019</b></li> <li>7. "Classifiers Ensemble of Transfer Learning for Improved Drill Wear Classification Using Convolutional Neural Network", J. Kurek, I. Antoniuk, J. Górski, A. Jegorowa, <b>B. Świderski</b>, M. Kruk, G. Wieczorek, J. Pach, A. Orłowski, J. Aleksiejuk-Gawron, Machine Graphics &amp; Vision, 28, <b>2019</b></li> </ol>

	<p>8. "Textural Features Based on Run Length Encoding in the Classification of Furniture Surfaces with the Orange Skin Defect", J. Pach, L. J. Chmielewski, A. Orłowski, M. Kruk, J. Kurek, <b>B. Świdorski</b>, I. Antoniuk, G. Wieczorek, K. Śmietańska, J. Górski, Machine Graphics &amp; Vision, 28, <b>2019</b></p> <p>9. „BCT boost segmentation with U-net in TensorFlow”, G. Wieczorek, I. Antoniuk, J. Kurek, L. Chmielewski, <b>B. Świdorski</b>, M. Kruk, J. Pach, A. Orłowski, Machine Graphics and Vision 28, <b>2019</b></p>
Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order	<p>Assistant supervisor: M.Sc. Grzegorz Wieczorek, „Computer analysis of microscopic images supporting the diagnosis of ductal carcinoma breast cancer”, <b>2017</b></p> <p><b>Reviewer:</b>  <b>Ph.D. theses</b>, “Three-dimensional reconstruction of the intestinal glands based on the sequence of microscopic images”, R. I. Roszczyk, Warsaw University of Technology, Information and communication technology, <b>2021</b></p>
Project/grants achievements (from the last 10 years)	NVIDIA GPU Grant Program, Academic Program Team, <b>2018</b>
Topic – research problem – for which the candidate supervisor seeks a doctoral student	<p>Development of artificial intelligence (especially deep learning methods).</p> <p>Application of artificial intelligence methods in biomedicine.</p> <p>Random Network, Siamese Network, Generative Adversarial Network</p>
<p><u>Contact details:</u></p> <p>Faulty/Institute</p> <p>E-mail address</p> <p>Tel.</p>	<p>Faculty of Applied Informatics and Mathematics / Institute of Information Technology, Department of Artificial Intelligence</p> <p>e-mail: <a href="mailto:bartosz_swiderski@sggw.edu.pl">bartosz_swiderski@sggw.edu.pl</a>,</p> <p><a href="http://www.wzim.sggw.pl/bartosz_swiderski/">http://www.wzim.sggw.pl/bartosz_swiderski/</a></p> <p>phone: 22 59 37 241</p>