TOMASZ KACMAJOR

Software Engineer

Gdansk, Poland Born 15.07.1986

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PROFILE

I'm a software engineer experienced in domains like space or microwave engineering and machine learning. I'm eager to self-improve and enjoy diving into new ideas related to the modern technology, science and AI.

COMPETENCIES

- Software Development
- Artificial Intelligence
- Space Equipment Testing
- Microwave Engineering
- Robotic Solutions

WORK HISTORY

2017-06 - present (remotely from 2018-09)

Software Engineer

Rovsing A/S

Developing software, mostly in Java, which controls Electrical Ground Support Equipment used for satellite components/ground segment hardware tests.

Participating in ISVV projects (Independent Software Verification and Validation) for safety-critical SW components.

2017-02 - 2017-05

Software Engineer

IHS Markit

Development and maintenance of CMS system in .NET technology.

2013-06 - 2017-01

R&D Engineer, Head of Software R&D

SpaceForest (previously TeleMobile Electronics)

Developing architecture for software projects within small team, mainly for "Filter Tuning Software", full-stack development (.NET), testing, integration with SCARA robots and measurement equipment, maintenance on customer side. Design of vehicles queue estimation visual system prototype.

2009-09 - 2013-06

R&D Engineer

Telemobile Electronics

Scientific research of microwave filter tuning methods and machine learning/optimization algorithms. Development of software for filter tuning utilizing neural networks. Development of software for telecommunication equipment diagnosis, IT maintenance.

EDUCATION

2005 - 2010

Gdansk University of Technology

Master of Science degree obtained in Faculty of Electronics, Telecommunications and Informatics, Specialization in Electronics

Master thesis: "Visual recognition algorithms for vehicles counting and classification " - application written in C++ and OpenCV

2003 - 2005

Gdynia Bilingual High School No. 3

Profile of mathematics and computer science

SKILLS

- Programming technologies: .NET/C#, Java, WinForms, Swing, OOP, CI/CD, MVC
- And familliar with: Python, TensorFlow, Keras, C++, OpenCV, SQL, Matlab
- Tools: VS2015, IntelliJ IDEA, Eclipse, nUnit, JUnit, Git, SVN, R#, Jenkins, JIRA, PyCharm
- AI: Neural Networks, CNN, Computer Vision, Fuzzy Systems, SVM, basics of RL
- Space domain: TM/TC communication (CCSDS, PUS, SpW, POS2), ISVV and ECSS standards
- Microwave engineering: filter tuning and design, using and programming measurement equipment e.g. VNA, familliar with ADS and CST software,
- Solving problems in stressful situations, good communication skills.

LANGUAGES

- Polish - native
- English - fluent, professional proficiency

ARTICLES AND ACHIEVEMENTS

- Author of a technical blog (.NET, Machine Learning, Computer Vision) - www.tomaszkacmajor.pl
- Co-authored 14 articles on Microwave Filter/Neural Networks topic, gave 11 presentations on international conferences. Full list of papers: www.researchgate.net/profile/Tomasz_Kacmajor
- Main papers:
  - T. Kacmajor, J.J. Michalski, "Neuro-Fuzzy Approach in Microwave Filter Tuning", *Microwave Symposium Digest (MTT), 2011 IEEE MTT-S International Microwave Week*, June 5-10, Baltimore, MD, USA 2011
  - T. Kacmajor, J. J. Michalski, J. Gulgowski, "Filter Tuning and Coupling Matrix Synthesis by Optimization with Cost Function Based on Zeros, Poles and Hausdorff Distance", *MTT-S Int. Microwave Symp. Digest*, Montreal, Canada, 2012
  - T. Kacmajor and J. J. Michalski, "Filter tuning based on linear decomposition of scattering characteristics" *Progress In Electromagnetics Research*, Vol. 135, 451-464, 2013
- Co-authored a chapter in a book:
  J. J. Michalski, J. Gulgowski, T. Kacmajor, M. Mazur, „Artificial Neural Network in Microwave Cavity Filter Tuning", In A. Georgadis, H. Rogier, L. Roselli, P. Arcioni (eds), Microwave and Milimeter Wave Circuits and Systems: Emerging Design, Technologies and Applications, First Edition, 2012 John Wiley & Sons, Ltd., Chichester UK
- Awarded "Recognition with distinction" at Young Scientist Contest at MIKON 2012, 19th International Conference on Microwaves, Radar and Wireless Communications for the paper "Approximation of filter characteristic to tuning element positions using coarse set"

CERTIFICATIONS

- Self-Driving Car Nanodegree - Semester 1 - by Udacity
- Advanced Machine Learning Specialization: Introduction to Deep Learning - by Coursera
- Reinforcement Learning Specialization - by Coursera
- Certificate in Advanced English (CAE) - University of Cambridge ESOL Examinations