

Tomasz Bałkowiec

Power Electronics Engineer | Assistant Professor

Summary

Digital media graduate with project experience in the field of technology based assessment. Currently working as IT Consultant at We4IT, Bremen in the field of IBM Notes Domino and XPages applications. Master studies focused on teams from different disciplines and cultural backgrounds on solutions for complex problems.

Experience

Power Electronics Engineer - Nevomo Poland Sp. z o.o.

09.2022 - present

- Power electronics converters simulations.
- Implementing algorithms on the DSP.
- Preparing documentation...

Assistant Professor - Warsaw University of Technology

02.2025 - present

- Preparing
- Implement the frontend for a BPMN compatible engine within We4IT Aveedo

Research Assistant - Warsaw University of Technology

02.2021 - 01.2025

- Preparing
- Implement the frontend for a BPMN compatible engine within We4IT Aveedo

Research Project Co-investigator - Warsaw University of Technology

2018 - 2021

- Design of the power electronics converters using discrete GaN transistors and SiC-based modules.
- 3D modelling of the applied converters using Autodesk Fusion

Research Project Co-investigator - Warsaw University of Technology

2014 - 2017

- Theory of Adjustable Speed Electric Power Generation
- Implement the frontend for a BPMN compatible engine within We4IT Aveedo

Scientific Employee / Software Development - University of Bremen

2021 - 2014

- Invented a flexible assessment framework, targeting industrial trainees
- Supervised software development lifecycle, Recruited team members

Project Management Simulation Training - Getoq Consulting

2011 / 11

- Performed a two-day project simulation from management perspective
- Topics included customer contracts, change management, controlling, operational tasks

Student Assistant / Programmer - otulea.uni-bremen.de

2010 - 2011

- Realized an online diagnosis platform for workforce literacy development (Flex)
- Modeled software design, implemented various prototypes, conducted usability tests

Education

Graduated as M.Sc. Digital Media - University of Bremen

2015 / 07

- Master Thesis: Semi Automated Scoring in Technology Based Assessment
- Developed and evaluated an algorithm for semi automated scoring of spreadsheet data

Master Project - PrIMA - University of Bremen

2012 - 2013

- Co-Invented a touch table application for medical support, co-developed software (Java)
- Formed a scrum team, mainted project dev server (Debian), surveyed target audience

- Inter-cultural classes in English, covering special topics in computer science and design
- Professionalized in research methods, software development and e-assessment

- Mastered six months of study and trans-cultural experience in Melbourne, Australia
- Finished machine programming, information visualization, professional essay writing