

PERSONAL INFORMATION



Mateusz Barys

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POSITION

Computer programmer

WORK EXPERIENCE

01/11/2017–Present

Java Developer

EIIPiI, Warsaw (Poland)

- Java SE programming
- Implementation of back-end services on Spring Boot, Spring Data JPA, Thymeleaf, Java8, TestNG

Stack overview projekt on:

<https://github.com/M-Barys/course-api-data>

08/2016–Present

Design Engineer

Warsaw Institute of Aviation (WIA/EDC), Contractor of General Electric Business Power, Cross Fleet Solution XFS, Warsaw (Poland)

Responsible for design of gas turbine rotor, turbine section. Transient and static analysis. Strong analytical skills and good knowledge of Fortran - writing macros for Ansys. Components owner.

Working in the international environment. Close cooperation with sites in Baden, Switzerland and Greenville, US. Active participation and conducting presentations during international meetings. Direct technical leader form Greenville.

07/2013–08/2014

Operator of CNC milling machines

Business Networking & Solutions Arkadiusz Najko, Warsaw (Poland)

Operator of CNC milling machines, lasers CO₂. Responsible for direct contact with customers and machines service. Design of the mechanical parts.

07/2011–10/2011

Internship

Luxeko Sp. z o.o., Mińsk Mazowiecki (Poland)

Responsible for technical documentation.

EDUCATION AND TRAINING

10/2016–Present

Doctoral Studies

EQF level 6

Faculty of Automotive and Construction Machinery Engineering, Warsaw University of Technology, Warsaw (Poland)

09/2014–05/2016

Master of Science

EQF level 5

Faculty of Mechanical Engineering, Technical University of Denmark, Lyngby (Denmark)

Courses:

- FEM - based Vibration Analysis and Acoustic Interaction
- FEM - heavy Programming the Finite Element Method
- Dynamics of Machinery
- Computational Multibody Dynamics
- Robust Design of Products and Mechanisms
- Advanced Fluid Dynamic
- Applied CFD
- Technology, Economics, Management and Organization

Master thesis:
Numerical and experimental analysis of the inertial amplification mechanisms for attenuation of bending vibrations

The project focuses on a new concept for attenuation of bending vibrations in continues structures. Dynamic problem for the system has been solved numerically by own program written in Matlab environment. The results were validated with solution obtained in Ansys programme and analytical calculations. The investigated mechanism shows better efficiency than standard vibrational absorbers and some prominent futures were observed. Numerical calculations have been proven by experimental analysis (modal testing). I have modeled test rig utilizing 3D CAD software, then designed parts were machined and assembled.

02/2014–09/2016

Master of Science

EQF level 5

Faculty of Automotive and Construction Machinery Engineering, Warsaw University of Technology, Warsaw (Poland)

Specialization: Mechanical Engineering

10/2010–02/2014

Bachelor of Science

EQF level 4

Faculty of Automotive and Construction Machinery Engineering, Warsaw University of Technology, Warsaw (Poland)

Specialization: Mechanical Engineering

Bachelor thesis: *The initial design of military vehicle body from composite materials*

PERSONAL SKILLS
Mother tongue(s)

Polish

Other language(s)

English

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills

- Good networking skills
- Lateral influences skills
- Experience in international work environment

Organisational / managerial skills

- 5-20 people group teaching experience

- Delivering technical training sessions: CNC machines, CAM and CAD programs.

Job-related skills

- Knowledge of Java frameworks and tools: Spring, Spring boot, Maven
- Java development tools (IntelliJ)
- Git
- My github repository: <https://github.com/M-Barys>
Under above link you can find my "todo list" web application.

Other skills

- Fortran, Matlab
- Engineering programs: Ansys, NX 10, Catia V5, AutoCAD
- Other programs: LaTeX, Microsoft Office

Driving licence

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ADDITIONAL INFORMATION

Honours and awards

- GE Power:
 - Engineering Design Center Power Gas Turbine Center CASE award - 1Q 2018 and being a great example of CASE culture in practice. CASE - Collaboration, Accountability, Speed, Empowerment
 - Engineering Design Center Rewards & Recognition award - 4Q 2017 Deliver Results In An Uncertain World
- Second award in the contest for the best MSc thesis defended in 2015/2016 at Warsaw University of Technology, Faculty of Automotive and Construction Machinery Engineering

Courses

- 2017 - Self-presentation, Creative problem solving, Machine Design Fundamentals
- **BEST org. Summer Course - Arduino Technology as the enabler of the Cyber Physical System.** Organized by Department of Engineering and Computer Science – University of Messina (27.072016-03.08.2016)

Publications

- M. Barys, J.S. Jensen, N.M.M. Frandsen, Efficient attenuation of beam vibrations by inertial amplification, European Journal of Mechanics - A/Solids, 2018
<https://doi.org/10.1016/j.euromechsol.2018.04.001>
- M.Barys, R.Zalewski, Analysis of inertial amplification mechanism with smart spring-damper for attenuation of beam vibrations, Machine Modelling and Simulations 2017 (MMS 2017), 157, 03002, 2018
<https://doi.org/10.1051/mateconf/201815703002>

Conferences

- II Polsko-Niemieckie Seminarium Doktorantów 2017 Presentation: *Efficient attenuation of beam vibrations by inertial amplification*
- MMS 2017 Machine Modelling and Simulations 2017 XXII. Slovak – Polish Scientific Conference Presentation: *Analysis of inertial amplification mechanism with smart spring-damper for attenuation of beam vibrations*