

Grzegorz Piotr Musial

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WEB [LinkedIn Profile](#)



Objective

Senior Engineering or Engineering Management position

Profile

Date and place of birth: 1 November 1982, Bielsko-Biala, Poland

Citizenship: Polish, US Permanent Resident Status (EB2 – “Green Card”)

Marital status: Married, daughter

Preferred name: Greg Musial

Work style: Problem Solver

Summary of Qualifications

- Proven track record of leading successful complex multidisciplinary New Product Introductions, see below for details
- Experienced in managing small to medium-sized engineering teams
- Advanced mechanical design and stress analysis (aircraft engines, aircraft structures, large steel structures and more)
- Proficient in project and program management, see below for details
- Development of bespoke engineering software and analysis workflows
- Advanced mechatronic design (custom robots, mechanical testing rigs and more)
- Practical knowledge of basic and advanced manufacturing technologies
- Practical knowledge of Lean Six Sigma methodology, Green Belt Certified (by General Electric)
- Editorial experience, web site design, popular science - education

Professional Experience

CURRENT EMPLOYER - QUEST GLOBAL, CHARLOTTE, NC, USA [11 SEP 2017 – PRESENT]

Position: Senior Lead Engineer

Computer Aided Design and Analysis specialist in the area of Large Gas Turbines. Support of Siemens Energy Charlotte turbine engineering activities. Design, Analysis and Definition of turbine casings, stator vanes, shrouds and associated small parts and tooling.

BOEING COMMERCIAL AIRPLANES, EVERETT, WA, USA [8 MAY 2015 – 31 MARCH 2017]

Position: Propulsion Systems Division - 777X Propulsion Test and Certification - GE9X Engine Development Program Focal

Integrated Program Team-wide integration of full-scale engine tests and certification aspects of the GE9X Engine Development Program. Management of test hardware and test requirements. Coordination of engine vendor, hardware commodity, logistics and supplier teams. Development lead of a suite of requirements and hardware tracking software tools.

CASCADE AEROSPACE ENGINEERING LTD, FARNBOROUGH, UNITED KINGDOM [21 JAN 2014 – 2 FEB 2015]

Position: Aviation stress analysis and design solutions - Program Manager

Program management in an aviation engineering consultancy - Cascade Aerospace Ltd (www.cascade-aerospace.co.uk). Contracted to set up a program management environment in a growing aerospace company (headcount - approx. 20 people). Managed stress analysis and mechanical design contracts for clients such as General Electric, Boeing and Airbus. Secondary tasks - analysis checking and stress report creation. Project highlight - creation of Integrated Finite Element Model and Interface Load Reports for the Airbus A350XWB Inner Fixed Trailing Edge. Development of company-wide Microsoft Project integrated project portfolio.

ADVANCED AEROSPACE LTD, DERBY, UNITED KINGDOM [6 FEB 2012 – 4 JAN 2018]

Position: Aviation Engineering Consultancy - Company Director

Management of aviation engineering consultancy.

ROLLS-ROYCE PLC, DERBY, UNITED KINGDOM [3 JAN 2012 – 24 DEC 2013]

Position: Turbines Research and Technology - Environmentally Friendly Engine, Design Consultant

Mechanical design, integration and validation testing of composite and metallic High and Intermediate Pressure Turbine parts for the Rolls-Royce technology demonstrator - Environmentally Friendly Engine (blades, seal segments, nozzle guide vanes). Research and development of new Turbine technologies and adaptation of existing technologies to suit development engine requirements. Significant Oxide/Oxide Ceramic Matrix Composites (Ox/Ox CMC) experience. Development of validation testing software and test procedures for a bespoke mechatronic test rig.

GENERAL ELECTRIC COMPANY POLSKA, ENGINEERING DESIGN CENTER, WARSAW, POLAND [1 AUG 2011 – 31 DEC 2011]

Position: Product Engineering Center - High Pressure Compressor, Staff Engineer - Leap-X / Passport 20, Team Leader

Promoted to Staff Engineer on technical path while retaining managerial Team Leader title. New Product Introduction activity – mechanical design and project management of the Leap-X / Passport 20 Production engines compressor module parts (bolted joints, shrouds, variable stator vanes). Compressor airfoil design subject matter expert. Material Review Board engineering approver.

GENERAL ELECTRIC COMPANY POLSKA, ENGINEERING DESIGN CENTER, WARSAW, POLAND [17 MAY 2010 – 31 JUL 2011]

Position: Aerostructures and Composites - Airbus A350 XWB, Stress Team Leader

Team management in the Aerostructures and Composites department. Airbus A350 XWB activities namely the mechanical design and stress analysis of the Outer Fixed Trailing Edge Secondary Structure, Leg Fairing Door and Hinged Fairing Door composite wing panels. Successfully led to completion of the respective Detailed Design Review / Airbus C-scheme. Development of a bespoke composite structures analysis software suite for complete analysis of large number or stress load cases.

GENERAL ELECTRIC COMPANY POLSKA, ENGINEERING DESIGN CENTER, WARSAW, POLAND [26 MAY 2008 – 16 MAY 2010]

Position: Product Engineering Center - High Pressure Compressor, Lead Engineer

Promoted to Lead Engineer in the Product Engineering Center - High Pressure Compressor. New Product Introduction activity - responsible for the design and project management of the GE's Leap-X engine Fixed Stator Vanes. Successfully completed the Detailed Design Review for the Leap-X Core 2 demonstrator engine. Awarded Early Career award for 2009 at the Engineering Recognition Day. Nominated to GE Art Adamson Award for outstanding performance and lasting contribution by the GE Aviation's Vice President of Engineering - Jeanne Rosario. Engineering Process Excellence award from General Electric. Development lead of a groundbreaking bespoke analysis software suite for complete analysis of compressor airfoil aeromechanical properties.

WARSAW INSTITUTE OF AVIATION, ENGINEERING DESIGN CENTER, WARSAW, POLAND [18 JUN 2007 – 25 MAY 2008]

Position: Airfoils Center of Excellence - Fan and Compressor, Design Engineer

Manufacturing introduction and manufacturing support of GE's GEnx-1B and GEnx-2B engine parts (Variable Stator Vanes and booster blades). Redesign for producibility and cost reduction. Engineering disposition of non-conforming parts. Vendor substantiation engineering. Lean Six Sigma Green Belt certified.

ROSCO POLSKA, CRACOW, POLAND [9 JAN 2007 – 2 JUN 2007]

Position: Steel structures - New Technologies Development Department Manager, Project Manager

Management of the new technology introduction department. Exploration of possibilities to cover new engineering markets.

ROSCO POLSKA, CRACOW, POLAND [18 DEC 2006 – 8 JAN 2007]

Position: Steel structures - Specialist in the technical department

Technical support and quality control in steel structures projects

AVIO POLSKA, BIELSKO-BIAŁA, POLAND [22 AUG 2006 – 16 DEC 2006]

Position: Aircraft engines, Special processes engineer

Introduction of new special processes to aircraft engine turbine nozzle and blade production - porting brazing, welding, furnace etc. to the Polish Avio facility as a mirror to the Italian counterpart. Experience with Pratt-Whitney PW308, General Electric GE90, T700, GEnx, and CFM International CFM56 hardware.

PRACTICE IN NETACTIVE, CRACOW, POLAND [1-31 MAR 2006]

Position: Computer networks

INTERIA.PL, INTERNET PORTAL, CRACOW, POLAND [13 DEC 2005 – 28 FEB 2006]

Position: Editor, New technologies division

PRACTICE IN FINNVEDEN BULTEN, BIELSKO-BIAŁA, POLAND [1-31 JUL 2004]

Position: Factory of screws for automotive industry, engineering, production, QA, part design

NON-PROFIT ASSIGNMENT IN THE INTERNET PORTAL GILDIA.PL [7 APR 2004 - PRESENT]

Position: Editor, Author, Coordinator of the tech-science branch

Education

ADVANCED COURSE IN ENGINEERING (ACE), GENERAL ELECTRIC (2008-2009)

A program established in 1923 by GE to promote development of engineering skills.

UNIVERSITY OF SCIENCE AND TECHNOLOGY AGH, CRACOW, POLAND

Faculty of Mechanical Engineering and Robotics (2001-2006)

Specialty: Mechanical Engineering - Robotics and Mechatronics

Degree: Master of Science in Engineering

Faculty of Mechanical Engineering and Robotics

Candidate for doctor's degree, research in scope of aeromechanics and flutter, forced to cancel (IP of GE)

Faculty of Physics and Applied Computer Science (2002-2005)

Specialty: Computational Physics, incomplete, focused on gaining actual engineering experience

Professional Affiliation

- Member of Royal Aeronautical Society (grade: MRAeS)
- Member of SIMP - Association of Polish Mechanical Engineers and Technicians

Linguistic Proficiency

- Polish – mother tongue
- English – fluent, including technical
- Italian, German – basic

Training and Certifications

- Certified Course - Team Management (by Door Training & Consulting)
- Certified Course: CATIA V5 Foundations for Aerospace Designers (by Dassault Systems)
- Certified Course: CATIA V5 Assembly Design (by Dassault Systems)
- Certified Course: Component Assemblies for Premier Programs (by Dassault Systems)
- Certified Course: ENOVIA V5 Essentials (by Dassault Systems)
- Certified Course - Strength of Materials (by Warsaw Institute of Aviation)

- Certified Course of Project Management (by JS Project)
- Certified Course of Low Power Wireless (by Contrans Texas Instruments)
- Course: Boost Your Productivity with MATLAB & Simulink (by Mathworks)
- Course: Propulsion 101 - Introduction to Propulsion Systems (by the Boeing Company)
- Certified Course: CNC programming (by European Social Fund)
- Certified Course: C# Basics, Intermediate and Advanced, Unity (multiple), User Experience Design (by Udemy)

Software and Other Skills

- Operating systems: Windows > Mac OS > Linux
- Computing software: Matlab – expert
- CAD (Computer Aided Design) Software: CATIA, NX Unigraphics – expert, AutoCAD, Solid Works – advanced
- PLM (Product Lifecycle Management) Software - Teamcenter – expert, ENOVIA - advanced
- FEA (Finite Element Analysis) Software: Patran/Nastran, ANSYS – expert
- Office Software: Excel including Visual Basic for Applications, Word, PowerPoint - expert, Microsoft Access – basic
- Programming languages: Visual Basic for Applications, Matlab, C sharp (C#) – expert,
- Programming languages – cont'd: C, C++, Visual Basic – advanced, Perl - basic
- IDE (Integrated Development Environment) Software - Visual Studio – advanced
- Game Engines: Unity - advanced
- Driver's license - B category

Personal Achievements

- European Engineer title (EUR ING – European-wide equivalent of Professional Engineer) - License 31815
 - Chartered Engineer title (CEng – UK equivalent of Professional Engineer) - License 607963
 - MRB (Material Review Board) Certified in General Electric (EASA, FAA) - nonconformance engineering disposition
 - Engineering Process Excellence award for Leap-X Core 2 High Pressure Compressor design
 - Nominated to Art Adamson Award for outstanding performance and lasting contribution for Leap-X/eCore High Pressure Compressor Airfoil Mechanical Design by the GE Aviation's Vice President of Engineering - Jeanne Rosario
 - 2009 Early Career Award in General Electric
 - Medal of Stanislaw Staszic for the best university graduate of 2005/2006
 - Master thesis - construction of 6-legged mobile robot – grade 6.0
 - Studies average – GPA = 5.0, scholarship – 4 years
 - Scientific circle – “Cyborg”; Prize winner of the XLIII Scientific Circle's Session, Metallurgical Section
 - Popular science lectures about Mars and robotics at many conventions
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