Hello, I'm Przemek Furman.

Mechanical design engineer with a background in automation control and robotics mainly focused on designing complex structures using composite materials. Delivering new technologies and prototyping new ideas. Developing scripts to improve workflow, increase efficiency and competitiveness. Specializing in one-stop-shop engineering solutions for composites materials.

Experience

2020–PRESENT

Pontis Engineering, Amsterdam, The Netherlands

COMPOSITE DESIGN ENGINEER

Responsible for the early stage of the project. Delivering new technologies to the composite market. Developing software tools to improve working efficiency. Supporting wind, e-mobility and offshore industry.

- CAD design of products and tooling.
- Validation & optimization of designed elements with FEM analysis.
- Prototyping designed elements, laboratory testing, design of experiments.

2017–2020

New Era Materials, Cracow, Poland

PRODUCT DEVELOPMENT ENGINEER

Responsible for part and mould design, prototyping and optimization of final process. Designing elements for both additive and CNC technologies. Deploying serial production of composite elements at customer facilities. Focused around in-house developed solid-state epoxy pre-pregs.

- CAM programming of 3-axis CNC.
- Designing tooling for high-temperature compression moulding and vacuum technologies.

2016

Anpharm Pharmaceutical, Warsaw, Poland

POST GRADUATE INTERN

Complete deployment of automatic diagnosis system for the pneumatic circuit of an electrostatic counting machine. The scope of the project was to design detection system of pneumatic pistons wear and tear, without the necessity of using high-speed camera. The developed system deployed using RaspberryPi was installed to constantly monitor the work of the pneumatic pistons and notify the maintenance team.

CONTACT

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TECHNICAL SKILLS

- SolidWorks
- Siemens NX
- Catia
- Siemens Femap
- 3D Printing
- Visual Basic for Application
- MS Office
- Arduino/RPi
- Python

PROFESSIONAL SKILLS

- Project planing
- Design thinking
- Time management
- Prototyping
- CAD design
- CAM programming
- GD&T knowdledge
- Scripting
- Automation

CERTIFICATIONS

Solid Works Professional
Dassault Systemes

Solidworks Simulations & Surface modelling
SolidExpert

Siemens NX CAD/CAM
CAMdivision

Femap analysis/API programming
Femto Engineering

Experience Continued

<div style="float:left">2015</div>

Technical University Dresden, Germany
INTERN
Working in the Institute of Lightweight Engineering and Polymer Technology. Manufacturing composite parts using out of autoclave, vacuum infusion and compression moulding technologies. Running laboratory trials, working with non-destructive technologies for composite testing. Building mobile ultrasound scanner for composite structures.

Education

2014–2015

Automation control & Robotics, faculty of Mechatronics
Warsaw University of Technology
Engineer & Master Engineer degree
Master Thesis: Design and development of robotic module concept for autonomous collection and distribution of standardized containers.
Design of autonomous transportation system based on two collaborating units managed by Warehouse Management System. Business case analysis and market research around the topic.

2014–2015

Mechanical engineering, Institute of lightweight engineering and polymer technology
Technical University Dresden
Erasmus+ student exchange
Design and development of High Voltage Transmission Lines inspection Robot. Mobile device aimed to simplify and automate high cost and low-efficiency traditional methods of maintenance HVTL. Built functional prototype, tested in a laboratory environment.

References

MARTIN KRETSCHMANN
Project Manager
martin.kretschmann@composites-united.com

BARTLOMIEJ PRZYBYSZEWSKI
Academic Researcher
bartlomiej.Przybyszewski.dokt@pw.edu.pl

LANGUAGES

Polish - *native*

English - *proficient*

German - *basic*

ORGANIZATIONS

2014–2015
WUT SOLAR BOAT
Solar1 Monaco Boat Challenge, worldwide championships of solar powered boats.

2014–2015
ROBOMATIC
Students association, mobile robot competition Robomaticon, Science fairs.

AWARDS & HONORS

2022
TOP PERFORMER
Annual award for top performing employee of 2021 within the company.

2015
ENEA+ INNOVATION
First prize for most innovative project for energy providing company nationwide.

HOBBIES

- Climbing
- Triathlon
- Music
- Technology