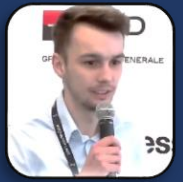


Zima Ionut-Marian



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Engineer and Researcher specializing in robotics and medical device development. Experienced in CAD development and manufacturing processes. Currently pursuing PhD in Medical Robotics while conducting research and teaching.

SKILLS

- Prototyping: 3D Printing, CNC Machining
- CAD Software: CATIA (Part Design, Assembly, GSD, Machining), Siemens NX
- Simulation Software: Delmia, RoboDK, RoboStudio
- PLM/ERP Systems: Siemens Teamcenter, SAP
- Teaching & Mentoring
- Research & Development
- Prototyping: 3D Printing, CNC Machining
- Lean Manufacturing

PROFESSIONAL EXPERIENCE

Teaching Assistant | Technical University of Cluj Napoca, Cluj, Romania | February 2025 - Present

- Teaching students: Computer Programming and Programming Languages
- Programming language: C
- Supervising diploma thesis projects
- Participating in the department's scientific research activities and publishing scientific papers
- Conducting ongoing student assessment and final evaluations

Research Assistant | Technical University of Cluj Napoca, Cluj, Romania | September 2023 - Present

- CAD: Siemens NX, Catia
- Design and development of robotic mechanisms for medical applications
- Design and development of surgical tools for robotic surgery
- Design for manufacturing
- Utilize CNC machining and 3D Printing technology for prototype development
- Present research findings at national and international conferences and scientific meetings
- Author and co-author scientific papers in the field of medical robotics

R&D Development Engineer | Electrolux, Satu Mare, Romania | December 2022 – September 2023

- Analyzed and validated software compatibility
- Collaborated with development teams to ensure electronic component integration met product specifications
- Utilized FSDS ERP system for component data management and tracking
- Managed product lifecycle and documentation using Siemens Teamcenter PLM system
- Collaboration with cross-functional teams globally

- Collaboration with manufacturing and prototype departments
- Development of 3D Mechanical parts using Catia

R&D Mechanical Design Engineer | Electrolux, Satu Mare, Romania | November 2021 – December 2022

- Designed and developed mechanical components using CATIA CAD software
- Created detailed 2D technical drawings and product documentation using CATIA
- Development of technical drawings for knobs, front panels, and oven doors incorporating product icons, logos, and graphical elements using Adobe
- PLM: Siemens Teamcenter
- ERP: FSDS

Manufacturing Engineer | ZES Zollner Electronic, Satu Mare, Romania | November 2020 – November 2021

- Ensured product and process quality met required specifications
- Created documentation for new products and production processes
- Prepared technical specifications for manufacturing processes
- Used SAP system for production management and documentation
- Reduced production variability by creating standard work methods and instructions
- Conducted REFA time measurements to improve process efficiency and workflow standards
- Used lean manufacturing principles to optimize production flow

INTERNSHIPS

Intern | Oviso Robotics, Cluj, Romania | June 2020 – July 2020

- Press Brake Automation Using Collaborative Robot
- Designed end-effector for UR collaborative robot using CATIA
- Created robotic cell layout
- Developed complete simulation
- Integrated UR collaborative robot with press brake

Intern | Universal Alloy Corporation, Dumbravita, Maramures, Romania | July 2019 – September 2020

- CAD Department
- Learned about aluminum manufacturing processes
- Catia v5: Part Design, Surface Design, Assembly Design

Intern | SC Proumin SRL, Satu mare, Romania | July 2018 – September 2018

- CNC Programming
- CAM: Surfcam
- Generated and verified CNC code to ensure proper machine operation
- Designed and developed machining fixtures for various manufacturing operations

Intern | Schlemmer Romania, Cluj, Romania | June 2017 – September 2017

- Studied plastic injection processes
- Gained understanding of plastic extrusion technology
- Studied mold design and tooling requirements for plastic components

Summer School | Schlemmer Romania, Cluj, Romania | June 2019 – July 2019

| June 2018 – July 2018

- CATIA training focused on plastic component design
- Studied injection molding design principles
- Gained practical knowledge of injection molding processes
- Developed understanding of plastic part design optimization

EDUCATION

PhD Degree in Medical Robotics | Technical University of Cluj Napoca | Cluj Napoca, Romania | October 2020 - Present

- Publishing research findings in scientific journals and presenting at international conferences
- Developing collaborative robot integration solutions for ankle rehabilitation clinical processes
- Creating specialized surgical tools for robotic-assisted procedures
- Designing and developing robotic mechanisms for medical rehabilitation applications using Siemens NX

MSc in Industrial Robotics | Technical University of Cluj Napoca | Cluj Napoca, Romania | October 2020 – September 2022

- CAD: Catia – Part Design, Assembly design
- CAM: Catia – Machining Module,
- CAE: Catia – Static analysis module
- Robot Simulation: Delmia, RoboDK, RoboStudio
- Process Simulation: Delmia
- Industrial Automation: Factory I/O, Siemens Tia Portal

BSc in Industrial Robotics | Technical University of Cluj Napoca | Cluj Napoca, Romania | October 2016 – July 2020

- CAD: Catia – Part Design, Assembly design
- CAM: Catia – Machining Module,
- CAE: Catia – Static analysis module
- Robot Simulation: Delmia, RoboDK, RoboStudio
- Process Simulation: Delmia
- Industrial Automation: Factory I/O, Siemens Tia Portal

High School Diploma – Mathematics – Computer Science | "Ioan Slavici " National College, Satu Mare | Satu Mare, Romania | October 2012 - 2016

- Programming language: C++

CERTIFICATIONS

- NX CAM Manufacturing Basics (Siemens) | 2024
- Fixed and Multi-axis Machining (Siemens)| 2024
- Google digital garage - Embedded Programming for Beginners| 2022
- Guhring Academy - Machining Tools| 2020
- Mastercam University Online| 2020
- Universal Robots Academy| 2019