europass

Liliana Stan

WORK EXPERIENCE

[06/2016 – Current]

QA & Customer Support Engineer

ModuleWorks

City: Bucharest

ModuleWorks is a leading provider of CAD/CAM software components for the manufacturing industry. The company specializes in providing solutions for CNC machining, simulation, and verification, and has a reputation for delivering high-quality products and excellent customer service.

- As a QA & Customer Support Engineer at ModuleWorks, my role has been to ensure the quality and reliability of our software products throughout the development process.
- Have been responsible for creating and executing test plans, analyzing and reporting on test results, and working with development teams to identify and resolve any issues or defects.
- Providing technical support to our customers and assisting them with any problems they may have encountered.
- Leading the team to manage two products and ensuring that the team delivers the project on time and in high quality.

Through my experience at ModuleWorks, I have gained a strong understanding of the manufacturing industry and the technical skills necessary to excel in a QA role in product development. Furthermore, as a team leader, I also played an important role in the development process by providing feedback on usability and identifying areas for improvement.

[09/2019 – 12/2019]

ERASMUS+ Mobility: QA & Customer Support Engineer internship

ModuleWorks GmbH

City: Aachen

Country: Germany

- During my Erasmus internship, I gained a valuable experience in the field of CAD/CAM software development. As an intern, I was given the opportunity to work and learn from experienced professionals.
- Learned about the different aspects of software development, including coding, testing, and customer support.
- The main responsibilities included working on testing and debugging software, troubleshooting customer issues, and providing technical assistance.
- Expand my skill set by learning about the latest technologies used in the industry.

Overall, my Erasmus internship experience at ModuleWorks provided me with a strong foundation in software development.

[06/2015 – 06/2016]

Junior Mechanical Design Engineer

Trafo Proiect SA, Member of the SGB-SMIT Group

City: Bucharest

- Responsible for the design, modeling, and analysis of power transformer components, including tanks, radiators, and bushings.
- Acquired valuable insight into the design and development of power transformers and learned to interpret various technical drawings and schematics for power transformer accessories.
- Used CATIA (and later SolidEdge) to create and revise detailed drawings and models of transformer components, including 3D models, parts manufacturing drawings, and final product assemblies.
- Prepared schematic drawings regarding the power transformer oil flow elements and valves during transportation or operation.
- Collaborated with cross-functional teams including electrical, production, and quality, to ensure that the design met the specifications and standards.
- Assisted senior engineers in the preparation of technical documents, such as design calculations, reports, and test procedures.

Through this role, I gained valuable experience in the field of mechanical design engineering and was able to apply my knowledge and skills in a real-world setting. I was proficient in using various software apps such as CATIA V5 R19, CATIA V6, Solid Edge ST6, and Microsoft Office Suite.

[06/2014 – 09/2014]

Internship - CAD design of refrigerator door

S.C. Arctic S.A

City: Gaesti

[02/2014 – 04/2014]

Internship - database maintenance of vehicle breaking parts

Honeywell

City: Bucharest

EDUCATION AND TRAINING

[2022 – Current]

"Manufacturing your future" Online Courses

EIT Manufacturing, Co-funded by the EU https://www.skillsmove.eu/

Courses:

- Critical parameters for setting up a milling operation
- General CAD/CAM Process-chain
- Methods of collecting data in milling processes
- Virtual Commissioning of CNC-Machines using a Digital Twin
- Introduction to FEA (Finite element analysis) in machining processes

[2017 – Current]

PhD studies in Industrial Engineering

Politehnica University of Bucharest

Thesis: "Web-based monitoring platform for Digital Twin-enabled robotic manufacturing systems"

- Gained a deep understanding of various advanced concepts and techniques in the field of modern manufacturing.
- Acquired expertise in the design, programming, and integration of industrial robots in manufacturing processes.
- Studied the latest developments in the field such as collaborative robots and mobile robots.

Had the opportunity to conduct research projects, which have allowed me to apply the knowledge and skills I have acquired in a practical setting. Furthermore, I have presented my research findings at conferences and published papers in reputable journals.

[2022] **Workshop: CNC Machine Basics and CNC Controller Functions**

ModuleWorks GmbH

[2019 – 2020] **POCU: "Be Antreprenor"**

Politehnica University of Bucharest

- Attended several workshops and coaching group meetings.
- Involved in various PCOP activities for risk management, financial and operations management, copyright, intellectual property, etc.
- 2 weeks Internship.
- Implemented a business plan considering market research, sales strategy, product offering, business model, and more.
- Published a research paper at the 12th annual International Conference of Education, Research, and Innovation (ICERI2019)

[2019] **Fundamentals of Python Programming Course**

SoloLearn

Link: shorturl.at/jlDUX

[2018] **Fundamentals of Java Programming Course**

InfoAcademy

Link: shorturl.at/HMNPW

[2018] **Fundamentals of C++ Programming Course**

InfoAcademy

Link: shorturl.at/HIRV9

[2015 – 2017] **MSc in Robotics**

Politehnica University of Bucharest

Final grade: 10
Thesis: "Platformă informatică pentru monitorizarea de la distanță via Internet a funcționării sistemelor de producție robotizate"
Link: https://www.youtube.com/watch?v=LNZudL05UHw

- Gained extensive knowledge and hands-on experience in industrial robot programming and applications. Learned how to program robots using different platforms such as ABB RobotStudio, Fanuc RoboGuide, and Process Simulate.
- Gained experience in CNC programming using CIMCO Edit.
- Had the opportunity to study various industrial applications of robots such as designing and programming robotic cells for material handling, welding, and painting applications.
- Gained knowledge in the integration of sensors and other peripherals such as vision systems, grippers, and other end effectors to enhance the functionality of robots.
- General knowledge in the field of manufacturing control systems, with a focus on the use of vision-based tools for basic applications, sensors, and systems for manufacturing process management.
- Gained experience in Computer-Aided Engineering (CAE) using the Ansys product. Had the opportunity to work on various Finite Element Method (FEM) studies.

The dissertation thesis was focused on the application of IIoT and Industry 4.0 in robotic systems. The aim of the research was to explore the potential of using IIoT technology to remotely monitor and control industrial robotic applications.

[2015]

Solid Edge Mechanical Professional Level Certification

ADA Computers, Siemens PLM Software Partner in Romania

Link: shorturl.at/dFQS5

[2011 – 2015]

BSc in Mechatronics and Robotics

Politehnica University of Bucharest

Field(s) of study: Robotics
Final grade: 10
Thesis: "Celulă flexibilă de debavurare cu RI de tip braţ articulat echipat cu sistem de cuplare-decuplare automată a efectorilor şi sistem de vedere artificială pentru controlul reperelor prelucrate"
Link: https://www.youtube.com/watch?v=oNdJJapSQVk

- General understanding of Industrial Robots and Industrial Manufacturing Systems.
- Acquired basic knowledge of electronic systems and mechanical engineering.
- Learned about the different types of robots, their components, and how they are used in industrial applications.
- Learned about the various sensors and end-effectors that are integrated into robotic systems. This knowledge helped me to understand how industrial robots are used in manufacturing and other industries and provided me with a solid foundation for my later studies in Mechatronics and Robotics.
- Gained knowledge in Computer-Aided Design (CAD) and had the opportunity to learn the basics of CAD design. This skill helped me in my master's studies and later in my professional career.
- Had the highest academic standing in my graduating class.

Through group and individual projects as well as attending Student Scientific Gatherings, I had the opportunity to apply my knowledge and skills in a practical setting and to develop my problem-solving and teamwork abilities.

[2007 – 2011]

Petru Cercel High School

Address: Targoviste

LANGUAGE SKILLS

Mother tongue(s): Romanian

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

ORGANISATIONAL SKILLS

Time management

- Experienced in prioritizing and managing time effectively, meeting deadlines, and achieving goals.

Attention to detail

- Able to pay attention to details, ensuring accuracy and completeness in work.

Planning and organization

- Capable of planning and organizing tasks and projects, breaking them down into manageable steps, and setting clear priorities.

Task delegation

- Able to delegate tasks effectively to team members, assigning responsibilities and setting clear expectations.

Process improvement

- Experienced in identifying areas for improvement in processes and systems, and implementing changes to increase efficiency and effectiveness.

COMMUNICATION AND INTERPERSONAL SKILLS

Active listener

- Able to pay attention and understand the perspectives of others, and respond in a way that is respectful and constructive.

Strong verbal and written communication skills

- Able to effectively communicate complex information in a clear and concise manner, both in person and in writing.

Empathy

- Able to understand and appreciate the feelings and perspectives of others, and to communicate in a way that is sensitive and understanding.

Team player

- Experienced in working collaboratively and effectively in a team environment, contributing ideas, and providing support to achieve common goals.

Adaptability

- Able to adapt to new situations and changing environments, and to work effectively with people from diverse backgrounds and cultures.

JOB-RELATED SKILLS

Understanding of software development life cycle

- Experience in software development and working closely with developers and other stakeholders to ensure the quality of the product.

Principles of software testing

- Knowledge of the principles and best practices of software testing during development such as unit testing, integration testing, acceptance testing, and regression testing.
- Experience with manual testing techniques and ability to use automated testing tools.

Agile methodologies

- Experience with Agile development methodologies, such as Scrum and Kanban boards.

JIRA and Confluence

- Experience using JIRA for tracking bugs and managing the development process, and Confluence for collaboration and documentation.

Git version control system

- Experience with Git commands and workflow, collaborating on projects, and merging branches.

Programming languages

- Proficient in Python programming language. Strong experience in writing scripts.
- Intermediate knowledge of C++ programming. Ability to write test scripts and automate test cases.

CAD design and 3D modeling

- Experience with CAD design and 3D modeling using software such as CATIA, Rhino, Solid Edge, and Inventor.

Tools for office work

- Proficient in Microsoft Office Suite (Word, Excel, PowerPoint, etc.), Microsoft Teams, and Outlook.
- Advanced skills working with ShareX, GIMP, and Camtasia for editing images and videos.

Liliana Stan

LIST OF SCIENTIFIC WORKS

Eng. Elena-Liliana STAN

University Politehnica of Bucharest
Faculty of Industrial Engineering and Robotics
Robots and Manufacturing Systems Departament

IF JOURNALS (Q1)

1. **Stan, L.**, Nicolescu, A.F., Pupăză, C. et al. (2022). *Digital Twin and web services for robotic deburring in intelligent manufacturing*. Journal of Intelligent Manufacturing, pp. 1-17, Impact factor: **7.136** (2021) Q1, WOS: 000805461000002 (https://doi.org/10.1007/s10845-022-01928-x)

ISI PROCEEDINGS

1. Nicolescu, A.F., **Stan, L.**, & Pupăză, C. (2019) *E-Learning Platform for Robotic Applications*, 12th annual International Conference of Education, Research and Innovation, ICERI2019 Proceedings, pp. 7384-7391, WOS: 000530212403050 (doi: 10.21125/iceri.2019.1760)
2. Coman, G. C., **Stan, L.**, Ivan, A. M., Nicolescu, A. F., & Verdete, B. (2019). *Programming and wireless control of a wafer manipulation SCARA robot using a mobile device*. IOP Conference Series: Materials Science and Engineering, 591(1), 012074 (doi: 10.1088/1757-899X/591/1/012074), WOS:000562929900074

INTERNATIONAL DATABASES

3. **Stan, L.**, Nicolescu, A. F., & Pupăză, C. (2023). *Remote monitoring and control via robot web services.* UPB. Scientific Bulletin, Status: Accepted, Publication in progress. Scopus
4. **Stan, L.**, Nicolescu, A. F., & Pupăză, C. (2020). *Reinforcement Learning for Assembly Robots: a Review*. Proceedings in Manufacturing Systems, 15(3), pp. 135–146, ISSN 2067-9238, Copernicus
5. Ivan, M. A., Nicolescu, F. A., Aram, C. G., & **Stan, L**. (2015). *Robotic deburring cell virtual prototyping*. Proceedings in Manufacturing Systems, 10(4), pp. 183–188, ISSN 2067-9238, Copernicus

PRESENTATIONS

1. **Stan, L.**, Nicolescu, A.F., & Pupăză, C. (2017). *Platformă informatică pentru monitorizarea de la distanță via Internet a funcționării sistemelor de producție robotizate* Student Scientific Session
2. **Stan, L.**, Nicolescu, A. F., & Pupăză, C. (2016). *Studiu de fundamentare a conceptului "Internet of Things"*. Student Scientific Session

3. Bilibou, I.A., Bledea, I.B., Paraschiv, F., **Stan, L.** & Parpală R. (2015). *Aplicaţie software pentru ordonarea după specificaţiile codurilor QR a unor dvd-uri utilizând un robot tip SCARA*. Student Scientific Session
4. Bledea, I.B., Stan, L. & Parpală R. (2014). *Comanda în buclă deschisă şi simularea funcţionarii unei A.C.N. utilizând LabVIEW integrat cu SolidWorks*. Student Scientific Session

CITATIONS:

2018

1. Rusu Robert, Alexandru, Tudor George, and Manole Monica. "A TWO-STAGE MACRO BASED APPROACH FOR DEVELOPING AIRCRAFT ENGINE COMPONENTS CONCESSIONS BASED ON SURFACE MORPHING TECHNOLOGIES." *Annals of the University of Petroşani* 20 (2018): 79-88, Google scholar

2019

1. Alexandru, Tudor George, et al. "NEW FEM APPROACH INCLUDING TECHNOLOGICAL PATTERNS FOR AUTOMOTIVE SPOT WELDING PARTS." *Proceedings in Manufacturing Systems* 14.4 (2019): 163-168, Copernicus

2021:

1. Lu, Xinghua, Yunsheng Chen, and Ziyue Yuan. "A full freedom pose measurement method for industrial robot based on reinforcement learning algorithm." *Soft Computing* 25 (2021): 13027-13038. IF.3.732 (2021) **Q2**

2022:

2. Narang, Yashraj, et al. "Factory: Fast contact for robotic assembly." *arXiv preprint arXiv:2205.03532* (2022).
3. Li, Yinkang, et al. "Constrained motion planning of 7-DOF space manipulator via deep reinforcement learning combined with artificial potential field." *Aerospace* MDPI 9.3 (2022): 163. IF: 2.666, Q1
4. Yin, Ruochen, et al. "Mastering Autonomous Assembly in Fusion Application with Learning-by-doing: a Peg-in-hole Study." *arXiv preprint arXiv:2208.11737* (2022).
5. Li, Y., et al. "Constrained Motion Planning of 7-DOF Space Manipulator via Deep Reinforcement Learning Combined with Artificial Potential Field. Aerospace MDPI 2022, 9, 163." (2022). IF: 2.666, Q1
6. AboElHassan, Ayman, and Soumaya Yacout. "A digital shadow framework using distributed system concepts." *Journal of Intelligent Manufacturing* (2022): 1-20. IF: 7.136, Q1

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