

Sîrbu Tiberiu-Iulian

✉ sirbu.tiberiu.iulian@gmail.com

in [Sirbu Tiberiu-Iulian](#)



Employment History

2024–Present

■ Data Scientist, Procter & Gamble (P&G)

- Developed proof-of-concept solutions for multiple business units, translating stakeholder needs into technical requirements and demos.
- Leveraged Copilot Studio alongside Microsoft Azure to architect and implement Retrieval-Augmented Generation (RAG) applications, improving knowledge retrieval efficacy.
- Designed and deployed voice and image analysis pipelines using Azure Cognitive Services, enabling automated multimodal data insights.
- Led exploration and prototyping of enterprise knowledge graph frameworks to interlink diverse data sources and support advanced analytics.

2024–2024

■ Data Scientist/AI Engineer, Emposo Romania SRL

- Developed a comprehensive pipeline for processing technical documents, integrating text, table, and object detection using YOLO.
- Implemented object detection algorithms to accurately identify and extract mathematical formulas from documents.
- Worked on the integration of Retrieval-Augmented Generation (RAG) techniques to enhance the chatbot's ability to provide accurate and relevant responses.
- Designed and developing custom scripts and algorithms for extracting and structuring data from various document formats.
- Conducted extensive research and testing to ensure the feasibility and accuracy of AI-driven solutions for complex problem-solving.
- Collaborated with team members to refine and optimize the pipeline for improved performance and user satisfaction.

2022–2024

■ Software Developer, Emposo Romania SRL

- Developed PyQt tools for databases management.
- Created ML algorithms for Automotive applications.
- Devised a routing application.
- Conducted MIL/SIL testing.



Employment History (continued)

- 2021–2022 **Software Coordinator**, Bertrand Bucharest
- Managed a team of four Function and Control developers.
 - Engaged in the design of an adjustable steering column from a mathematical perspective.
 - Developed Matlab/Simulink tools to accelerate the implementation process.
 - Created a 3D Simulink interface for an adjustable steering column using 3D geometry.
- 2021–2021 **Software Engineer Developer**, Bertrand Bucharest
- Engineered monitoring functions for diverse software using Targetlink.
 - Executed C code verification processes.
 - Conducted detailed Polyspace analyses.
 - Implemented Model in the Loop testing for the specified software.
- 2019–2021 **Software Engineer Developer**, FEV ECE AUTOMOTIVE
- Developed Simulink software for automotive and naval applications.
 - Performed Model in the Loop testing.
 - Created Matlab tools for documentation automation in LaTeX.
 - Managed requirements in DoorsNG.
 - Mentored colleagues developing Bachelor Degree Thesis in Control Systems area.
- 2016–2019 **Software Engineer Developer**, Expleo Group
- Developed test scenarios for ADAS systems like Adaptive Cruise Control and Advanced Emergency Braking.
 - Created a Simulink model for an in-house ADAS project.
 - Supervised summer internship projects focused on new machine learning systems.
- 2016 **Software Developer Intern**, Expleo Group
- Learned software engineering process and Matlab/Simulink.
 - Developed a system on automotive area which used several control laws, a PID and different Model Predictive Control laws, and switched between them with respect to external disturbances and road conditions.

Education

- 2020 – 2025 **Ph.D.**, University of Bucharest in Graph Theory and Machine Learning.

Education (continued)






- 2017 – 2019  **Master of Science, Politehnica University of Bucharest** in Control Theory.
Thesis title: *Model Matching versus Model Following in Flight Control*.
- 2013 – 2017  **Bachelor of Science, Politehnica University of Bucharest** in Computer Science.

Research Publications

Published Articles

- 1 A. Popa and T.-I. Sirbu, "Strategic optimization of electric vehicle charging station placement in romania," in *Operations Research Forum*, Springer, vol. 6, 2025, pp. 1–17.
- 2 A. Popa and T.-I. Sirbu, "Optimizing electric vehicle charging infrastructure: A gnn-tsp approach," in *2024 International Conference on INnovations in Intelligent SysTems and Applications (INISTA)*, IEEE, 2024, pp. 1–6.
- 3 R. Marinescu-Ghemeci, A. Popa, and T. Sirbu, "Algorithms on a path covering problem with applications in transportation," in *International Conference on Combinatorial Optimization and Applications*, Springer, 2023, pp. 16–28.

Skills

Programming Languages	 Matlab/Simulink, Python, C++ (basic knowledge), MATLAB Scripting, Targetlink
Software & Tools	 MATLAB, Simulink, Targetlink, Polyspace, DoorsNG, LaTeX
Technologies	 ADAS systems, Machine Learning algorithms, Supervised Learning, Unsupervised Learning, Graph Neural Networks, NLP, Knowledge Graphs
Engineering Skills	 Mathematical Analysis, Software Requirements Analysis, Software System Design
Additional Skills	 Coaching, Team Leadership, Problem Solving

Additional Projects

- 2022–2024 **Government Financed Project**, University of Bucharest
- Project Title: *Impact of Fake News*
 - Focus Areas: Graph Theory and Python Programming
 - Role: Researcher
 - Objective: Investigate the influence of misinformation in digital media using advanced data analytics.