

PERSONAL INFORMATION



Mirko Stojiljković

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Sex Male | Date of birth 14/12/1980 | Nationality Serbian

JOB APPLIED FOR

Scientific Software Developer

WORK EXPERIENCE

2019 onward

Technical Writer

Real Python (<https://realpython.com/>)

- Creating and proposing Python and machine learning articles

Business or sector IT

2018 onward

Technical Writer

Duomly (<https://www.duomly.com/>)

- Creating Python, JavaScript and machine learning tutorials

Business or sector IT

2016 onward

Assistant Professor

2008–2016

Teaching Assistant

2005–2008

Researcher

University of Niš, Faculty of Mechanical Engineering in Niš (<http://www.masfak.ni.ac.rs>)

- Lecturing — energy technologies and energy management
- Research — hybrid MILP/metaheuristic fuzzy optimization of efficient energy systems, machine learning, investments in the energy sector, etc.
- Development of internal scientific software solutions
- Consulting services
- Director of Regional Energy Efficiency Center Niš

Business or sector Research and education

EDUCATION AND TRAINING

2007–2015

Date: 02 October 2015

Doctor of Sciences in Mechanical Engineering
(Equivalent to Doctor of Philosophy)

University of Niš, Faculty of Mechanical Engineering in Niš

- Doctoral dissertation title: “Multi-criteria Optimization of Trigeneneration Energy Systems”
- Supervisor: Prof. Dr. Bratislav Blagojević

1999–2005

Date: 31 January 2005

Graduated Mechanical Engineer
(Equivalent to Master of Mechanical Engineering)

University of Niš, Faculty of Mechanical Engineering in Niš

- Thesis title: “Air-Conditioning of the Natatorium in SRC Dubočica, Leskovac”
- Supervisor: Prof. Dr. Bratislav Blagojević
- Graduated with Honors

PERSONAL SKILLS

Mother tongue(s) Serbian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
	Replace with name of language certificate. Enter level if known.				
French	A2	B1	A2	A2	B1
	Replace with name of language certificate. Enter level if known.				

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills ■ Good communication skills gained through the experience as a professor, teaching assistant, consultant and trainer

Organisational / managerial skills ■ Organisation (organised scientific conferences and professional training courses)
 ■ Leadership (currently the director of Regional energy efficiency Center Niš)

Job-related skills ■ Data science and machine learning
 ■ Applied mathematics, mathematical modeling and optimization
 ■ Programming
 Python
 Python numerical and scientific libraries: NumPy, SciPy, Pandas, Jupyter, Scikit-Learn, StatsModels, CVXOPT, Keras, Tensorflow, Matplotlib, Apyori, etc.
 Python back-end development: SQLAlchemy, Flask, basics of Django
 Front-end development: HTML, CSS, JavaScript, jQuery, Bootstrap, React
 Other: C, C#, SQL, JSON
 ■ Software and systems
 LibreOffice, MS Office & automation with VSTO, VBA, and Python
 Databases: SQLite, PostgreSQL
 TeX/LaTeX
 Gurobi Optimizer, Engineering Equation Solver, Git, etc.
 Linux, Windows
 ■ Experience in energy-sector-related projects with software development and climate impact assessment
 ■ Scientific and technical writing

Digital skills	SELF-ASSESSMENT				
	Information processing	Communication	Content creation	Safety	Problem solving
	Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Driving licence B

ADDITIONAL INFORMATION

Publications

- Doctoral dissertation: Stojiljković M.M., “Multi-criteria optimization of trigeneration energy systems”, University of Niš, Faculty of Mechanical Engineering in Niš, Niš, Serbia, 2015.
- Coauthor of the “Manual for Energy Audits of Residential Buildings”, University of Niš, Faculty of Mechanical Engineering in Niš, Niš, Serbia, 2016.
- Coauthor of the “Manual for Municipal Energy Balances”, Ministry of Mining and Energy of the Republic of Serbia, 2007
- Coauthor of the module: “District Heating Plants and Individual Boiler Houses” of the “Programme of Realization of Serbian Strategy of Energy Sector Development 2007-2012”, Ministry of Mining and Energy of the Republic of Serbia, 2006

 Scientific papers
 (most important out of over 50)

- Stojiljković, M. M., Bi-level multi-objective fuzzy design optimization of energy supply systems aided by problem-specific heuristics, *Energy* (ISSN 0360-5442), 137 (2017), pp. 1231–1251.
- Stojiljković, M. M., Ignjatović, M. G., Vučković, G. D., Greenhouse gases emission assessment in residential sector through buildings simulations and operation optimization, *Energy* (ISSN 0360-5442), 92 (2015), pp. 420–434.
- Stojiljković, M. M., Ignjatović, M. G., Vučković, G. D., Stojiljković, M. M., Blagojević, B. D., Impact of reduced heating demand on greenhouse gases emission under cost-optimal operation of cogeneration plants, *Facta Universitatis, Series: Working and Living Environmental Protection* (Online Edition ISSN 2406-0534, Printed Edition ISSN 0354-804X), 12 (2015), 3, pp. 269–278.
- Ignjatović, M. G., Blagojević, B. D., Stojiljković, M. M., Mitrović, D. M., Possibilities to minimize greenhouse gases emission and maintain thermal comfort in office buildings with co-simulation assisted operation of air handling units, *Facta Universitatis, Series: Working and Living Environmental Protection* (Online Edition ISSN 2406-0534, Printed Edition ISSN 0354-804X), 12 (2015), 2, pp. 151–160.
- Stojiljković, M. M., Stojiljković, M. M., Blagojević, B. D., Multi-Objective Combinatorial Optimization of Trigeneration Plants Based on Metaheuristics, *Energies* (ISSN 1996-1073), 7 (2014), 12, pp. 8554–8581.
- Stefanović, G., M., Vučković, G. D., Stojiljković, M. M., Trifunović, M. B., CO₂ reduction options in cement industry—The Novi Popovac case, *Thermal Science* (ISSN 0354-9836), 14 (2010), 3, pp. 671–679.

Software solutions

- Stojiljković, M. M., Combinatorial Optimization Framework. Technology: Python
- Stojiljković, M. M., Jupyter notebooks for machine-learning-aided investment optimization and decision-making in the buildings sector
- Stojiljković, M. M., Test-MS, Software to test training participants online. Technology: Python/Flask.
- Stojiljković, M. M., ESO-MS, Software for synthesis, design and operation optimization of complex energy systems using genetic algorithms, simulated annealing, particle swarm optimization, ant colony optimization, tabu search, scatter search, harmony search, linear programming and mixed integer linear programming. Technology: .Net/Mono, Gurobi Optimizer, programming language: C#.
- Stojiljković, M. M., Ignjatović, M. G., Software for operation optimization of buildings heating, ventilation and air-conditioning systems using the internal (built-in) particle swarm optimizer and the external tools for detailed simulations of buildings. Technology: .Net/Mono, programming language: C#.
- Stojiljković, M. M., Ignjatović, M. G., BuildingEnergy, The tool to estimate buildings annual energy consumption, energy label and financial and environmental effects of energy savings measures. Technology: .Net/Mono, programming language: C#.
- Stojiljković, M. M., CBA-MS, Cost-benefit and sensitivity analysis software according to Guide to Cost-Benefit Analysis of Investment Projects, European Union, 2015. Technology: Microsoft Office Excel and Visual Basic for Applications.
- Stojiljković, M. M., Ignjatović, M. G., BuildingsEnergyConsumption, The tool to calculate buildings monthly heating and cooling demands, according to SRPS EN ISO 13790. Technology: Microsoft Office Excel and Visual Basic for Applications.
- Stojiljković, M. M., BuildingsEnergyLabeling, The tool to evaluate buildings annual heating demand and determine the energy labels, according to current Serbian legislation. Technology: Microsoft Office Excel.
- Stojiljković, M. M., Buildings-MS, The tool to evaluate buildings annual heating demand, electricity requirement for lightning, fuel consumption, primary energy and greenhouse gases emission, and perform basic financial evaluation of energy efficiency measures. Not compliant to the latest standards. Technology: Microsoft Office Excel and Visual Basic for Applications.
- Group of authors, Software for creating energy balances of cities and municipalities for the

- Ministry of Mining and Energy of the Republic of Serbia. Technology: Microsoft Office Excel. Stojiljković, M. M., TRIGEN M-S-O, Software for operation optimization of small cogeneration and trigeneration plants. Technology: Microsoft Office Excel, Excel Solver and Visual Basic for Applications (version 1), Microsoft Office Excel and Microsoft Solver Foundation (version 2) and .Net/Mono and Microsoft Office Excel (version 3).
- Stojiljković, M. M., Buildings Heat Transfer, The tool to simulate the thermal behavior of buildings accounting heat accumulation of walls, by assuming 1D heat transfer and using the Tri-Diagonal Matrix Algorithm. Technology: Microsoft Office Excel and Visual Basic for Applications.
- Vučković, G. D., Stojiljković, M. M., Software for the advanced exergy analysis of an industrial plant. Platform: Engineering Equation Solver.

Date: 05 August 2019

Signature: _____