

Aurelian Draghia

Curriculum Vitae

Bucharest, Romania
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Country of Citizenship	Romania
Website	www.aureliandraghia.com
Portfolio	www.aureliandraghia.com/portfolio
Competence Areas	Data Science, Hydrology & Water Resources, Software Developement, Research, and Business

Positions

10/2023 – 09/2024	Business & Technical Analyst. <i>The World Bank</i> , Bucharest, Romania. Responsibilities: Business analysis, Executive collaboration, Needs assessment & gap analysis, Technical specifications development, Solution design & recommendation
03/2020 – 09/2023	Data Lead. <i>The World Bank</i> , Bucharest, Romania. Responsibilities: Data management & analysis (in Azure Data Lake), Automated geospatial pipelines, Integration of large-scale datasets, Technical leadership & reporting
01/2017 – Present	Owner & Co-founder. <i>Roua Soft</i> , Bucharest, Romania. Responsibilities: End-to-end software solutions, Full SDLC (analysis, design, implementation), Hydroinformatics extensions & tools, Custom software solutions for civil engineering, logistics, & e-commerce
01/2015 – 12/2016	Researcher. <i>Technical University of Civil Engineering of Bucharest (TUCEB)</i> . Responsibilities: Research methodology & article writing, Optimization of multi-reservoir systems for efficient water resource management, Development of advanced strategies for river pollution control and mitigation, Decision support systems design, Advanced hydraulic modeling, Decision support systems design, Scenario-based risk management, Cross-functional project collaboration
01/2010 – 12/2014	Research Assistant. <i>(TUCEB)</i> , Bucharest, Romania. Responsibilities: Peer-reviewed publications & academic presentations, Hydrological modeling, Hydraulic modeling, Software development (full standalone software and add-on products for river hydraulics, hydrology and statistics), Data analysis, Parametric analysis & modeling, GIS Analysis, Statistical analysis

Education

10/2015 – 02/2016	B.Sc. in Philosophy. <i>University of Bucharest</i> , (incomplete bachelor's degree).
10/2010 – 07/2012	M.Sc in Hydraulic engineering. <i>TUCEB</i> , Master's Thesis: Flood Risk Management on the Danube – Downstream Sector, Advisor: Prof. Radu Drobot.
10/2006 – 07/2010	B.Sc. in Environmental Engineering. <i>TUCEB</i> , Bachelor's Thesis: Statistical Processing of Annual Maximum Discharges, Advisor: Prof. Radu Drobot .

Competences & Skills

Data Science & Analytics	Data analysis, data wrangling, exploratory data analysis (EDA), statistical modeling and analysis, data visualization, decision support systems. Specific Tools: Python, C#, SQL, Jupyter Notebook, Microsoft Azure (Data Lake), BigQuery, Spreadsheets, Git, Bitbucket.
Software Development & Automation	Full software development lifecycle (SDLC), software design, processes automation, technical leadership. Specific Tools: Python, C#, C++, OOP, VS, PyCharm, cloud computing (Azure), databases.

Hydrology & Water Resources Engineering	Hydrological and hydraulic modeling, flood hazard & risk analysis, scenario-based risk management, reservoir system optimization, GIS analysis. Specific Tools: Mike by DHI (1D, 2D, RR, SHE, SDK, etc.), HEC-RAS, ArcGIS, QGIS, MathCAD, AutoCAD.
Entrepreneurship & Business	Background in entrepreneurial ventures, project management, strategic planning, financial analysis, operations, sales, customer engagement, marketing and team leadership. Specific Tools: ERP/PM/CRM (Bitrix24, Trello, custom OMS), accounting tools (SAGA C, Keez), digital marketing (Google Ads, Facebook Ads), analytics (Google Analytics).
Research & Academic Contributions	Peer-reviewed publications, Academic writing, complex analysis, modeling and simulations, statistics, multidisciplinary collaboration.
Foreign Languages	English (strong command).

Certifications & Awards

Certifications in Data and Software	Google Data Analytics Professional(02/2025), Microsoft Azure Fundamentals AZ-900(02/2025), Google Cloud Fundamentals(01/2025), Developing Microsoft .NET Applications in C#(11/2007).
Certifications in Hydrology	Hydrodynamic Modeling using MIKE 11 and Mike 21(07/2011), Integrated 1D-2D Flood Modeling using MIKE FLOOD(09/2011), Hydrological Modeling by NAM & UHM Models(02/2012), Integrated Catchment Modeling using MIKE SHE(09/2014), Flood Risk(09/2011), Multi-Level Capacity Building in Flood Management(11/2011).
Certifications in Business	Blockchain Technologies(12/2024), Performance Management and KPIs(10/2024), Leadership(01/2011).
Awards	First Prize – Hydrotechnical Trophy Student Competition(05/2010).

Selected Peer-reviewed Publications

09/2024	Radu Drobot, Aurelian Draghia , Cristian Dinu, Nicolai Sîrbu, Viorel Chendeş, Petrişor Mazilu. <i>Adaptive Operating Rules for Flood Control of a Multi-Purpose Reservoir</i> , Hydrology 2024, 11(9), 147 (Q2, Impact Factor: 3.530).
12/2023	Radu Drobot, Aurelian Draghia , Nicolai Sîrbu, Cristian Dinu. <i>Synthetic Drought Hydrograph</i> , Hydrology 2023, 10(1), 10 (Q2, Impact Factor: 3.530).
12/2021	Radu Drobot, Aurelian Draghia , Daniel Ciuiu, Romică Trandafir. <i>Design Floods Considering the Epistemic Uncertainty</i> , Water 2021, 13(11), 1601 (Q2, Impact Factor: 3.530).
11/2018	Sorin N. Ciolofan, Gheorghe Militaru, Aurelian Draghia , Radu Drobot, Monica Drăgoicea. <i>Optimization of Water Reservoir Operation to Minimize the Economic Losses Caused by Pollution</i> , IEEE Access, Volume 6, Page(s): 67562 - 67580 (Q1, Impact Factor: 3.367).
12/2017	Sorin Ciolofan, Aurelian Draghia , Radu Drobot, Mariana Mocanu, Valentin Cristea. <i>Decision Support Tool for Accidental Pollution Management</i> , Environmental Science and Pollution Research, 25, 7090–7097 (2018) (Q2, Impact Factor: 5.190).
03/2017	Aurelian Draghia , Radu Drobot. <i>Coordinated Flood Management of Cascade Reservoirs—Case Study: Jijia River</i> , Environmental Engineering and Management Journal (EEMJ) (Q3, Impact Factor: 1.186).

Full publication list available at: www.aureliandraghia.com/publications