SAMVEL MKHITARYAN, PHD

HIGHLIGHTS

- 7+ years in research and program management positions
- 4+ years in data analytics
- 4+ years using Python, R and SQL, Power BI and Tableau
- Working knwoledge of state of the art techniques in Machine Learning and AI
- Knowledge of ApacheSpark and PySpark technologies

CONTACT

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/samvel-mkhitaryan/

LANGUAGES

English ●●●●●
Dutch ●●●○○
Russian ●●●●●
Spanish ●●●●○
Armenian ●●●●●

EXPERIENCE

2025 - Now
Snr. Data Scientist
Rabobank, Utrecht , The Netherlands

- Applied statistical methods and machine learning to obtain insights from data to inform decision making
- Built, tested and validated predictive models
- Turned data into simple valuable solutions for the business

2018 Nov - 2022 Aug
PhD Candidate
Social and Behavioral Sciences, Maastricht University , The Netherlands

- Developed a computational framework for analysing behaviour as a system of interdependent components to assist analyists in gaining deeper insights
- Helped stakeholders avoid costly experiments by developing a computational framework for running scenario analysis (what-if scenarios) by utilizing Fuzzy Cognitive Maps and Machine Learning

2019 Sep - 2021 Dec
Data Analyist
RedKite, Armenia

- Collected and analysed user experience data for a SaaS
- Designed experiments to test the success of new features
- Contributed to the improvement and development of product features

Jul – Dec 2017
Data Analysis Consultant
United Nations Population Fund (UNFPA) , Armenia

- Helped the company improve their product platform by quantitatively evaluating the effectiveness and the quality of their e-learning module

Nov 2015 - June 2016
Data Analysis Consultant
UNFPA, Armenia

- Contributed to the elaboration of the Population Situation Analysis which provided evidence for integrating issues related to population dynamics in the national policies and programs, and for elaborating targeted strategies and interventions to address the identified challenges

Dec 2015- March 2016
Data Analysis Consultant
World Bank, Armenia

- Provided the World Bank with insights on the success of their programs by designing and analysing baseline and follow-up (evaluation) surveys

April 2015 – June 2015
Data Analysis Consultant
UNFPA, Armenia

- Management of programs related to the reproductive health of adolescents and youth as well as provision of assistance in the planning, implementation and monitoring and evaluation of country programs.

Sep 2011 – Sep 2014
Program Manager
Statistics, Monitoring and Evaluation Unit at UN Children's Fund (UNICEF), Armenia

- Provided support to strengthen focus on children in national data collection and management systems, with emphasis on regularity of administrative data collection, consolidation and timely publication (or electronic release). Assisted in conducting Multiple Overlapping Deprivation Analysis in Armenia

EDUCATION

2018 - 2022
Philosophy Doctor (PhD)
Maastricht University Faculty of Health, Medicine and Life Sciences

2016 - 2018
Research Master of Sciences (MS/MPhil)
Tilburg University School of Social and Behavioral Sciences

2013 - 2015
Master of Public Health (MPH)
American University of Armenia School of Public Health

2007 - 2011
Bachelor's degree, Psychology
Yerevan State University

TRAINING

Jan 2020
Complex System Modeling Winter School
New England Complex Systems Institute, MIT
Massachusets, USA

- Courses attended: Mathematical models for systems modeling, Supervised and Unsupervised Learning methods, Simulation Models and Network Analysis

June 2017
Advanced Statistics and Data Mining Summer School
Universidad Politécnica de Madrid

- Courses attended: Bayesian Networks, Hidden Markov Models, Supervised Pattern Recognition, and Unsupervised Pattern Recognition

Feb – March 2019
Systematic Reviews and Meta Analysis
The Open Medical Institute Salzburg, Austria

January 2020
The Complete SQL Bootcamp
Udemy

May 2020
Big Data on Amazon Web Services
Pluralsight

SPEECHES AT CONFERENCES

Dec 2021
Simulation for a Smart World: From Smart Devices to Smart Cities. Winter Simulation Conference
Phoenix, Arizona, USA

Dec 2020
Ph.D. Colloquium at ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (PADS)
Miami, Florida, USA

April 2020
Quantitative Ethnography-COVID Data Challenge
USA

PUBLICATIONS & PROJECTS

Mkhitaryan, S., Giabbanelli, P. J., de Vries, N. K., & Crutzen, R. (2022).Stochastic Optimization Algorithms For Training Fuzzy Cognitive Maps: An Extension to FCMpy Package in Python .

Mkhitaryan, S., Giabbanelli, P. J., Wozniak, G., de Vries, N. K., & Crutzen, R. (2021). How to Use Machine Learning and Fuzzy Cognitive Maps to Test Hypothetical Scenarios in Health Behavior Change Interventions: A Case Study on Fruit Intake [in the review process at the BMC Public Health].

Mkhitaryan, S., Giabbanelli, P. J., Wozniak, M. K., Napoles, G., de Vries, N. K., & Crutzen, R. (2021). FCMpy: A Python Module for Constructing and Analyzing Fuzzy Cognitive Maps. arXiv preprint arXiv:2111.12749 [in the review process at the JSS].

Mkhitaryan, S., & Giabbanelli, P. J. (2021). How Modeling Methods for Fuzzy Cognitive Maps Can Benefit From Psychology Research. WSC 2021

Zörgő, S., Jeney, A., Csajbók-Veres, K., **Mkhitaryan, S.**, and Susánszky, A. (2021). Mapping the Content Structure of Online Diabetes Support Group Activity on Facebook. Advances in Quantitative Ethnography, Springer Nature Switzerland AG.

Mkhitaryan, S., Giabbanelli, P. J., de Vries, N. K., & Crutzen, R. (2020). Dealing with complexity: How to use a hybrid approach to incorporate complexity in health behavior interventions. Intelligence-Based Medicine, 3, 100008.