Garen Avanesian — Data Scientist

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Profile

I am a Data Scientist with expertise in machine learning, data visualization and dissemination. With a robust set of skills in such programming languages as R and Python, I have a profound record in producing data insights to inform policy, programs, and sector planning.

Skills

Programming Languages: R, Python

Statistical Software: Stata, SPSS

Database Management and Big Data: SQL, Databricks, Microsoft Azure Machine Learning

Version Control: Git, GitHub

Data Visualization: ggplot2, Shiny, Plotly, Power BI, Tableau

Experience

Data Science Specialist, United Nations Children's Fund (UNICEF), New York, USA
September 2022 — Present
Working in Data & Analytics Section, helping countries to foster child well-being through data-driven insights, harnessing the power of analytics to support and enhance global child welfare initiatives.

○ Co-led the technical team for the UNICEF Report on Progress on Children's Wellbeing, taking a leading role in enhancing methodological rigor and broadening statistical analysis based on the principles of literate statistical programming in R on cross-sectoral topics, including impact of demographic change on child wellbeing.
○ Automated the process for generating statistical country briefs in R, utilizing Git/GitHub, to enable effective monitoring of progress on child-related Sustainable Development Goal indicators.
○ Optimized the link between statistical estimates production and the UNICEF Data Warehouse by utilizing R and Python, significantly improving data consolidation and accessibility.
○ Led the UNICEF Report on Bridging the Digital Gender Divide, leveraging large-scale data and advanced statistical methods, including mixed-effect models, to advocate for equitable policies in digital skill acquisition.
○ Standardized complex survey data through data harmonization and using version control (Git and GitHub), improving the production of child well-being estimates.
○ Supervised a team of 3 analysts in the development of analytical tools to collect data on quality of learning amongst children.

Data Analysis and Statistics Consultant, United Nations Children's Fund (UNICEF), New York, USA
August 2019 — June 2022
Was working in the Education Data Unit of Data & Analytics Section.

- Substantially contributed to the data processing and estimates production for the UNICEF Stillbirth report 2020, working with birth history data.
- Automated the production of country reports on stillbirth for country consultation process using R and ggplot2.
- Led the COVID-19 emergency response and monitoring for the Section, influencing educational policies with data reports on remote learning, digital connectivity, and school closures.
- Developed innovative statistical methodologies like the 'UNICEF Remote Learning Readiness Index' and the 'Reachability Indicator', that set up UNICEF program work in developing countries during the COVID-19.
- Co-led the MICS-EAGLE initiative to enhance the utilization of household survey data in developing countries for sector planning.
- Built statistical/data analytic capacity using R, Stata, and SPSS, across international offices and ministries, facilitating better data management during emergency responses.

Data Analysis and Statistics Consultant, United Nations Office on Drugs and Crime (UNODC), Vienna, Austria
January 2019 — August 2019
Was working as a Data Analyst for Data Development and Dissemination Section of the Research and Analysis Branch.

- Led the data analysis for the UNODC Global Study on Homicide 2019, authoring significant sections, creating foundational analytical methods, and producing homicide estimates for the report.
- Developed a Shiny R app for visualizing homicide data, integrating Plotly visualizations and Leaflet maps to effectively uncover and illustrate critical patterns and trends in homicide distribution.
- Conducted comprehensive statistical forecasting and predictive modeling to provide actionable insights.
- Managed extensive databases using R and SQL, integrating geospatial and crime data for a holistic view of global homicide trends.
- Created dynamic visualizations and web applications in R and Python to make complex data more accessible, aiding global decision-making.

Database Manager, International Atomic Energy Agency (IAEA), Vienna, Austria
October 2015 — December 2018
Was working as a conference clerk and consultant to maintain conference participation data for different departments of the IAEA.

- Enhanced the statistical reporting system for the Conference Services Section, improving data precision and operational efficiency.
- Contributed to optimization of the IAEA Conferences and Events mobile application, significantly boosting user engagement.
- Developed visualization and reporting tools for conference participation data, yielding insights into participant demographics and trends.

Visiting Lecturer/Trainer, Southern Federal University (SFedU), Rostov-on-Don, Russia
April 2017 — April 2019

- Led an intensive course on "Data Analysis and Statistical Programming in R" at the Department of Psychology and Educational Research. This training was aimed at academic staff and postgraduate

students as part of a local capacity-building program. Conducted multiple sessions: 04/2017, 10/2017, 04/2018, 10/2018, 04/2019.

Senior Business Data Analyst, JSC "Federal Freight" (Russian Railway Holding), Moscow, Russia
January 2012 — March 2014
Was working in the Section of Information Management and Business Analytics within the CEO's Office at one of the largest national enterprises specializing in railway cargo operations.

○ Spearheaded GIS-based logistic and cargo data analyses, identifying key areas for efficiency enhancements and providing spatial trend insights to inform strategic decision-making.
○ Managed and synthesized geospatial data with traditional datasets, significantly improving logistical insights and operational strategies.
○ Developed advanced spatial data visualizations using GIS tools (ArcGIS and QGIS), delivering actionable intelligence that drove business improvements.

Education

Southern Federal University/South-Russian Polytech University   **Rostov-on-Don, Russia**
PhD in Economic Sociology and Demography   *2009 – 2012*

Southern Federal University   **Rostov-on-Don, Russia**
Master's Degree with Honors in Sociology   *2004 – 2009*

Languages

English, Russian, German