

Alex Vinicio Bajaña Rivera

Ingeniero en Ciencias Económicas y Financieras

Data scientist, web developer, and economist. I am a person who seeks to learn methods by which to generate a change in reality, I have found in programming and data science a valuable resource on which there is much to be developed, especially in the ethics and philosophy underlying them. I am currently looking to become an instructor in open source programming languages.

Datos Generales

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Edad: 28 años

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Idiomas

English: Advanced.

French: Intermediate.

Additional education

Formal education

MicroMasters Program in Data, Economics, and Development Policy

The Massachusetts Institute of Technology (MIT) offers a two-stage program for a master's degree in Development Data, Economics, and Policy. The first of these stages is virtual and it is the one I am currently studying. The second of them is face-to-face in case of completing the previous stage and making a formal application.

Escuela Politécnica Nacional (Ecuador)

I obtained the title of Engineer in Economic and Financial Sciences, studying at this institution during the period between September 2010 and October 2016.

Université Jean Monnet Saint-Étienne

Through the agreement between the National Polytechnic School and this institution, I obtained a Bachelor's degree in Economics and Management studying during the period between June 2012 and June 2016.

- II International Congress of Economics and Finance (May 2011)
- Seminar "Role of the Popular and solidarity economy in the System Social and Solidarity " (July 2013)
- Basic R programming course (April 2014)
- III International Congress of Economics and Finance (July 2015)
- The Data Scientist's Toolbox (Septiembre 2018)¹
- R Programming (Octubre 2018)¹
- Getting and Cleaning Data (Noviembre 2018)¹
- Exploratory Data Analysis (Noviembre 2018)¹
- Building Tidy Tools (Febrero 2020)²
- Data Science and Big Data Analytics: Making Data-Driven Decisions (Mayo 2020)³
- Microeconomics course (Enero 2021)⁴

Programming essentials in Python (January, 2021)

¹Part of the Data Science specialization provided by Johns Hopkins Bloomberg School of Public Health

²Certificate of attendance endorsed by RStudio

⁴One of 5 courses to complete the MicroMaster program in Data, Economics, and Development Policy

Computer skills

Sorted by most experience and knowledge:

- **R:** Advanced.
- **LaTeX:** Advanced.
- **python:** Intermediate.
- **SQL:** Intermediate.
- **Office:** Advanced.
- **Stata:** Basics.
- **SPSS:** Advanced.
- **Eviews:** Basics.

Relevant activities

- First place in the poster contest of the III International Congress of Economics with the theme: " Estimation of the General linear model"
- Instructor of the course " The R programming environment in the field of scientific research. ".
- Founder of the Zizek Micro Brewery.

Work experience

National Institute of Popular and Solidarity Economy (June 2013 - December 2013)

Technical direction intern

I collaborated in the development of guidelines for entrepreneurial projects in the popular and solidarity framework, for this I compiled institutional economics literature, specifically related to: policies applied to countries without monetary autonomy, and the role of political, economic and social institutions within the transmission of the effects of said policies.

Pre-university Formarte (Mayo 2015 - Noviembre 2016)

Private teacher of basic mathematics, calculus, economics and statistics

I provided tutoring for academic support for college and undergraduate students. My job consisted of: planning the classes according to the student's course or level, preparing the material for each class and preparing periodic evaluations to test their knowledge.

National Public Procurement Service (December 2016-August 2017)

Procedures Supervision Analyst

I worked within risk supervision in the modeling and indicators division, performing tasks associated with the detection and monitoring of risks within public procurement processes. I carried out the follow-up management of the quality control of the medicines in the context of the Reverse Auction of Medicines. I carried out activities of development and maintenance of web tools (carried out with Shiny-Server) for the visualization and reporting of information for institutional use. I made weekly reports of the risk model for Ecuadorian Added Value. These activities required consultations and debugging of data from different sources (SENAE, SRI, SOCE, IESS, etc).

Center for Fiscal Studies (November 2017-January 2019)

Economic Tax Analyst

I update the Non-Oil Business Activity Index (IAE-NP) on a monthly basis. On the other hand, I develop and maintain an application for monitoring non-oil business activity. Within the fiscal environment, I have prepared reference documents on rates and particularities of international tax legislation with the purpose of making comparative analyzes of the tax legislation of Ecuador. Along the same lines, I developed an investigation of the effects of the presence of tax havens on the economic performance of developing countries. Regarding the management of databases, I keep updated the repository used by internal researchers of the Center for Fiscal Studies as well as external researchers. Additionally, I generate informative news reports from the main media (Text Mining and Web Scraping). On the other hand, I work together with the Department of Mathematical Modeling of the EPN in the development of a human resource optimization model to reduce waiting times

in the attention of the SRI.

Vital Strategies (February 2019-May 2019)

Junior consultant

The Social Laboratory was born as part of a collaboration agreement between Bloomberg Philanthropies, with its Data for Health initiative, and the National Institute of Statistics and Censuses, it sets three objectives: generate reliable and quality data, generate knowledge based on these data, and bring these two products to the public. I developed a visualization tool with free software, in this case R using its Shiny library. This tool consists of modules for analysis, presentation of studies and interconnection of databases. However, prior to its development, a process of homologation of the databases was necessary, specifically corresponding to Administrative Records of the Public Health System.

UNICEF (June 2019- January 2020)

Visualization specialist consultant

Continuing the work of the Social Laboratory, UNICEF joined its efforts to guarantee the continuity of the project. This time my job is to strengthen the visualization tool by making use of the innovations that R makes available to web developers. Priority was given to the analysis of indicators associated with social problems around children and adolescents. On the other hand, I also carry out knowledge transfers about the use of R for the development of web applications.

Vital Strategies (February 2020- March 2021)

Consultant specialist in development and visualization

The first pillar of the Social Laboratory is the generation of quality databases called statistical records, which are the results of the application of validation, correction, imputation and homologation processes of the different fields of the administrative records available in Ecuador. Together with my team we have developed the algorithms that these processes involve. I also develop an application in which the parameters of these algorithms are declared and in turn the automatic reports of each one of them are

presented. At present, the findings of the application of these processes provide us with material for the development of an analysis document about the recovery of observations using third-party sources, this in addition to enriching the available data, allow institutions to improve capture methods and data analysis. Finally, in the same line that was developed in previous consultancies, the statistical data visualization tool has been strengthened with a view to phenomena such as the pandemic that we are experiencing today.

References

- Cristian Benalcázar, teléfono: +593 996663187
- Evelyn Chanatasig, teléfono: +593 983876116
- Jameson Mencías, teléfono: +593 982236031
- Néstor Villacreses, teléfono: +593 995679022
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GitHub:

<https://github.com/AlexB4891>