**George G. Vega Yon, Ph.D.**

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**PROFESSIONAL SUMMARY**

Accomplished **data scientist** with over **10 years of experience** with multiple software packages and scientific publications. A results-driven professional with over **half a million downloads** and over [**200 citations for academic work**](https://scholar.google.com/citations?user=34E1yTAAAAAJ&hl=en). A solution development and delivery champion with a proven track record of spearheading solutions across data science, network science, and statistics.

**EXPERIENCE**

***Research Assistant Professor in Epidemiology, The University of Utah Nov 2021 – Present***

* Studies Machine Learning, Network Science, Data Science, Statistical Computing.
* Managed a team of researchers, leading to published papers, software, and conference talks.
* Taught and designed the first course on HPC using R and C++ (graduate level).
* Founder of the "Network Science and Social Network Analysis at the U" (NetSNAU) Group.
* Contributed to research grants (CDC and VA,) helping to secure over 1 MM USD in funding.
* Core faculty member of the "Utah Center for Data Science".

***Research Programmer II, University of Southern California Feb 2018 – Nov 2021***

* Provides technical support and training sessions on software development, HPC, R, and C++.
* Write scientific papers on network science, statistics, and phylogenetics and present them at conferences.
* Designed and taught the course "Intro to Health Data Science" (graduate level).
* Contributed to research grants (NIH and DoD,) helping to secure over 10 MM USD in funding.

***Programmer Analyst II, University of Southern California Oct 2015 – Feb 2018***

* Organized local conferences on Network Science.
* Founder of the "R Bookcamp for Statistical Computing."
* Wrote scientific papers and software on network science and presented them at conferences.
* Designed and led workshops on R and Social Network Analysis.

***Research Analyst, Chilean Pension Supervisor Aug 2011 – Aug 2014***

* Wrote papers and automatized statistical reports about the Chilean unemployment insurance system.
* Managed social security records and created representative samples for researchers.
* Designed and implemented a pipeline for simulation and forecasting of the unemployment
* insurance government funds. Reports were distributed to the Chilean Congress.

**EDUCATION**

***Ph.D. in Biostatistics***

University of Southern California, 2020

***M.Sc. in Economics***

California Institute of Technology, 2016

***MA in Economics and Public Policy***

Universidad Adolfo Ibáñez, 2011

***BS in Business Administration***

Universidad Adolfo Ibáñez, 2011

**SKILLS**

R, C++, LaTeX, SQL, Python, XML, NLP, Stata, AWS, Git, GitHub, Docker, tensorflow, continuous integration, Slurm, Unix, Jira, Scrum, Kanban, team management and coordination, R Shiny, excellent communication skills.

**SOFTWARE PACKAGES (selected)**

* *aphylo: Statistical Inference of Annotated Phylogenetic Trees* (2022). R package version 0.2-1 URL: <https://cran.r-project.org/package=aphylo> .
* *rgexf: Build, Import and Export GEXF Graph Files* (2020). R package version 0.16.0. URL: [https://CRAN.R-project.org/package=rgexf](https://cran.r-project.org/package=rgexf).
* *netdiffuseR: Analysis of Diffusion and Contagion Processes on Networks* (2020). R package version 1.22.0. URL: <https://cran.r-project.org/package=netdiffuseR>.
* *ergmito: Exponential Random Graph Models for Small Networks* (2020). R package version 0.3-0. URL: <https://cran.r-project.org/package=ergmito>.
* *slurmR: A Lightweight Wrapper for ’Slurm’* (2020). R package version 0.4-1. URL: [https://CRAN.R-project.org/package=slurmR](https://cran.r-project.org/package=slurmR).
* fmcmc: A friendly MCMC framework (2020). R package version 0.3-0. URL: [https://CRAN.R-project.org/package=fmcmc](https://cran.r-project.org/package=fmcmc) .

**ACADEMIC PUBLICATIONS (selected)**

* George G. Vega Yon. “*Power and Multicollinearity in Small Networks: A Discussion of “Tale of Two Datasets:*

*Representativeness and Generalisability of Inference for Samples of Networks” by Krivitsky, Coletti & Hens*”.  
In: **Journal of The American Statistical Association** (2023). to appear.

* George G. Vega Yon, Mary Jo Pugh, and Thomas W. Valente. *Discrete Exponential-Family Models for Multivariate Binary Outcomes*. Nov. 2022.  
  In: **arXiv**: [2211.00627 [cs, stat]](https://arxiv.org/abs/2211.00627).
* George G. Vega Yon, Andrew Slaughter, and Kayla de la Haye. “*Exponential random graph models for little networks*”.  
  In: **Social Networks** 64 (2021), pp. 225–238. URL: <https://doi.org/10.1016/j.socnet.2020.07.005>.
* George G.. Vega Yon, Duncan C. Thomas, John Morrison, Huaiyu Mi, et al. “*Bayesian parameter estimation for*

*automatic annotation of gene functions using observational data and phylogenetic trees*”.  
In: **PLOS Computational Biology** 17.2 (Feb. 2021), pp. 1–35. URL: <https://doi.org/10.1371/journal.pcbi.1007948>.

* George G. Vega Yon and Paul Marjoram. “*fmcmc: A friendly MCMC framework*”.  
  In: **Journal of Open Source Software** 4.39 (July 2019), p. 1427. URL: <http://joss.theoj.org/papers/10.21105/joss.01427>.
* George G. Vega Yon and Brian Quistorff. “*parallel: A command for parallel computing*”.  
  In: **The Stata Journal: Promoting communications on statistics and Stata** 19.3 (Sept. 2019), pp. 667–684. URL: <http://journals.sagepub.com/doi/10.1177/1536867X19874242>.

**AWARDS**

* Best Paper Awards, 72 ICA conference, 2022.
* Travel Grant, Society of Young Network Scientist, 2019.
* Fellowship, California Institute of Technology, 2014.
* Scholarship, Adolfo Ibáñez University, 2006.

**REFEREE (ad hoc reviewer)**

* Journal of The American Statistical Association
* BMC Infectious Diseases
* The Official Journal of The Society for Computational Economics
* The R Journal
* Social Networks
* Journal of Mathematical Sociology
* Journal of Open Source Software
* Bioinformatics
* Computer Methods and Programs in Biomedicine Update