Alessandro Zito

Italy: +39 349-461-3584 | US: +1 984-528-0287 | azito@hsph.harvard.edu | Linkedin | GitHub | Website

EDUCATION

Harvard T.H. Chan School of Public Health   Boston, MA, USA
Postdoctoral research fellow at the Department of Biostatistics   *Sep 2023 – current*
- Principal investigator: Jeff Miller
- Areas of research: Non-negative Matrix Factorization, Cancer Detection, Machine Learning

Duke University   Durham, NC, USA
Ph.D. in Statistical Science   *Aug 2019 – Sep 2023*
- Supervisor: Prof. David Dunson
- Research interests: Bayesian Methods, Bayesian Nonparametrics, Species Sampling Models, Ecology
- Dissertation: *Ecological modeling via Bayesian nonparametric species sampling priors* Link Slides

Bocconi University   Milan, Italy
Master's of Science in Economics and Social Sciences   *Sep 2016 – Mar 2019*
- Graduation grade: 110 cum laude / 110
- Thesis: *Conjugate Fractional Factorial Thompson Sampling via unified skew-normal*, with Daniele Durante

Bocconi University   Milan, Italy
Bachelor's of Science in Economics and Social Sciences   *Sep 2013 – Oct 2016*
- Graduation grade: 110 cum laude / 110
- Exchange program at The University of Chicago, Department of Economics, Fall 2015

EXPERIENCE

Intern Data Scientist   San Bruno, CA, USA
Google LLC, Youtube Data Science team   *May 2022 – Aug 2022*
- Implemented Bayesian hypothesis testing methods to evaluate platform experiments
- Designed a methodology to construct proxy metrics for long-term experiment outcome prediction based on Multivariate Bayesian Optimization algorithms and Gaussian processes. Follow up paper: ArXiv:2307.01000
- Coded up the two methodologies into two R packages for future internal usage

Intern Data Scientist   Milan, Italy
Generali Italia S.p.A., Advanced Analytics Solutions team.   *Jun 2018 – Jul 2019*
- Developed and implemented a Bayesian bandit algorithm recommendation system in Python via a Google Cloud Platform API to optimize a life insurance policy marketing campaign
- Implemented a drivers profiling model, migrated from the partner society MyDrive Solutions, using Python

PUBLICATIONS

Zito, A., Rigon., T. and Dunson, D. B. (2022), Inferring taxonomic placement from DNA barcoding aiding in discovery of new taxa. *Methods in Ecology and Evolution.* 14, 529–542. DOI: 10.1111/2041-210X.14009

Zito, A., Rigon., T., Ovaskainen, O. and Dunson, D. B. (2022), Bayesian modelling of sequential discoveries, *Journal of the American Statistical Association (T&M)*, 1-12, DOI: 10.1080/01621459.2022.2060835

PREPRINTS

Lee, C. J., **Zito, A.**, Sang, H. and Dunson, D. B. (2024+), Logistic-Beta Processes for Modeling Dependent Random Probabilities with Beta Marginals ArXiv:2402.07048, *under review*.

Zito, A., Rigon., T. and Dunson, D. B. (2023+), Bayesian nonparametric modelling of latent partitions via Stirling-gamma processes, ArXiv:2306.02360, *under review*.

Richardson, L., **Zito, A.**, Greaves, D. and Soriano, J. (2023), Pareto Optimal Proxy Metrics, ArXiv:2307.01000, *under review*.

Softwares

Zito, A. (2023) `ConjugateDP`: Random number generator for the Stirling-gamma distribution. GitHub

Zito, A. (2022) `BayesANT`: Bayesian nonparametric taxonomic classifier for DNA barcode sequences. GitHub

Zito, A., Rigon, T. (2021) `BNPvegan`: Bayesian nonparametric methods for ecology. GitHub

Skills

Languages: Italian (Native), English (Fluent), Spanish (Proficient)
IT: R, Rcpp (Advanced), Python, Git, Cluster computing via SLURM, SQL, Microsoft Office (Proficient)

Awards

ISBA 2022 Travel Award ($300 CAD)
BEST Award for Ph.D. student research for the 2021/2022 academic year
Ph.D. Teaching Assistant of the Year Award for the 2020/2021 academic year
Best Student/Postdoc Contributed Paper Award at ISBA 2021 World meeting
Bocconi Merit Award scholarship for the 2016/2017 and 2017/2018 academic years

Referee Activites

Bayesian Analysis, Electronic Journal of Statistics, Computational Statistics & Data Analysis, Ecography, Philosophical Transactions of the Royal Society B: Biological Sciences.

Other Activities

Painter. Winner of the 2018 "Looking for Art" contest in Milan. Personal exhibitions at "Triennale di Milano" museum of arts and "Spazio Arte Tirabassi" art gallery.
Former **semi-professional actor** at "Proxima Res", Milan