

EDUCATION AND AWARDS

- 2019-23 **PhD Statistics, London School of Economics and Political Science**
- Part of the Time Series and Statistical Learning research group.
- Specialisation:** changepoint analysis for high dimensional time series analysis. **Courses:** Probability and Mathematical Statistics (I-II), Graph Theory, Asymptotic Methods and Statistical Applications, Bayesian Methods, Stochastic Processes, Harmonic Analysis, Random Matrix Theory **Teaching:** Statistics Practitioner's Challenge, Quant Dissertation Advisor, ST304 Time Series and Forecasting. **Supervisors:** Professor Piotr Fryzlewicz (primary); Dr. Clifford Lam (secondary).
- 2018-19 **MSc. Statistics - Research (Distinction), London School of Economics and Political Science**
- Phase one of Economic and Social Research Council (ESRC) funded PhD pathway.
- Dissertation:** "Screening High Dimensional Time Series via Tilting" (distinction, 80%)
- Modules:** Statistical Inference: principles, methods, and computation (distinction, 78%), Time Series (merit, 61%), Statistical Computing (distinction, 77%), Econometric Analysis (distinction, 80%), Dissertation. **PhD courses:** Measure Theoretic Probability (A). **Scholarships:** ESRC DTP (1+3) Studentship - full funding (tuition fees +stipend) for a one year research masters linked to a PhD in the Department of Statistics.
- 2014-17 **BSc. Economics and Econometrics (First Class), University of York**
- Core modules:** Econometric Methods for Research (93%), Applied Econometrics (78%), Financial and Time Series Econometrics (75%), Macroeconomics I-III (91%), Microeconomics I-III (77%). **Scholarships:** National Scholarship Program at York (2014-17), Achieving Excellence Bursary (2015-17). **Exchange:** One year for-credit exchange at the University of Hong Kong; primary focus on demographic and socioeconomic statistics.
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RELEVANT EXPERIENCE

- 2019 **Data Science Intern**
Competition and Markets Authority - London
Investigated the use of alternative data sources for detecting resale price maintenance in online markets. Obtained data by scraping dynamic web pages using Selenium and BeautifulSoup. Prototyped a scalable (space + time) Python model, based on the principle of isolation forests, capable of detecting anti-competitive behaviour with high probability. The solution was approved by the director of Merges and is being rolled out across the CMA
- 2018 **Summer Research Scholar**
Cross-disciplinary Centre for Systems Analysis - York
Developed a package in R, based on the work of Jones et al. (2014), for the estimation of a dependent variable's full conditional distribution via Beta-type densities. Researched moment

estimates of densities nested by the five parameter Generalized Beta to expedite maximum likelihood estimation. The package is currently being trialed by researchers at the University of Leeds for use in risk models relating to the development of gestational diabetes.

2018

Economics Intern

Competition and Markets Authority - London

Performed statistical analysis on three years of price data in support of Vanilla Group/Washstation merger inquiry. Leverage statistical learning procedures, such as k-means clustering, to help identify competitive effects of the merger. Analysis was carried out in Stata, and outputs appear in both the Provisional Findings and the Final report.

2016-17

Policy Research Intern

Center for the Study of Democracy - Sofia

Assisted the Center with research relating to Bulgaria's long term strategy for the achievement of Horizon 2020 goals within the energy sector, for use in the European Commission backed ENABLE.EU project. Research focuses on the impact of heterogeneous governance frameworks on R&D, and will be published in an EC funded report.

06/16-09/16

Statistical Research Intern

Institute for Integrated Development Studies - Kathmandu

Performed statistical analysis in R on datasets from the International Organization for Migration (IOM) and the World Bank; made substantial contributions to an IOM report on the key drivers of savings among Nepalese migrant workers. The role required knowledge of statistical procedures such as regression analysis and diagnostics, and survey weighting.

SKILLS

Languages: English (fluent), Italian (fluent), French (intermediate).

Technologies: R, Python, Stata, Eviews, OxMetrics, MS Office suite.

Markup: LaTeX, YAML, HTML (+CSS), Markdown