BASTIAAN QUAST
HTTP://QUA.ST/ | BASTIAAN.QUAST@ITU.INT

International Telecommunication Union | United Nations
Geneva, Switzerland

Research Interests

Artificial Neural Networks (R & Python) | Machine Learning | Data Science | Microeconomic estimators | Quantum Machine Learning | Complexity Modeling

Employment

2017-   RESEARCHER | ITU, GENEVA
Machine learning researcher; Economic impact of AI; developing ITU strategic targets

2016-17   RESEARCHER | UNCTAD, GENEVA
Gender impact evaluation of FTAs on Developing Countries (East African Community), using Computation General Equilibrium programming (GTAP)

2015–16   ECONOMIST | THE INTERNET SOCIETY, GENEVA
Paper on exogenous increase in availability of local language content and internet adoption, presented at EEA 2016 | Conceputalised and executed report "Promoting Local Content in Africa" presented at Africa Internet Summit, leading to Google update advertising policy to help monetise African language content.

2013-15   RESEARCH CONSULTANT | COGINTA, GENEVA / GUINEA
Directed a large scale representative baseline survey of Conakry (Guinea) population | Conducted analysis for Canton of Geneva commissioned survey on police victimisation

2014–15   RESEARCH ASSISTANT | CENTRE ON CONFLICT, DEVELOPMENT AND PEACEBUILDING
Collaborated with the "Institute Nationale du Development Humaine" (govt. Morocco) to direct a survey on behaviour and community relations, using a Regression Discontinuity Design identification strategy

2013-14   RESEARCH ASSISTANT | CENTRE FOR FINANCE AND DEVELOPMENT, GENEVA
Developed survey design on remittances from Geneva | Redeveloped Centre's website

2013-14   TEACHING ASSISTANT | THE GRADUATE INSTITUTE, GENEVA
Taught weekly Masters' Statistics workshops | Supervised Masters' Research Projects

2012   RESEARCH CONSULTANT | DUTCH DEVELOPMENT FINANCE INSTITUTE FMO, THE HAGUE
Designed and directed survey on implementation of environmental, social, and governance best practices among FMO-invested hedge funds

2009   RESEARCH ASSISTANT | UNIVERSITY OF GRONINGEN, NETHERLANDS
Data collection and analysis for Ministry of Economics Affairs commisioned survey

Education

2012–16   PHD IN DEVELOPMENT ECONOMICS | THE GRADUATE INSTITUTE GENEVA
Jury: Richard Baldwin (president), Jean-Louis Arcand (supervisor) & Michael Kende
Internet Adoption in Africa | Trade & Global Value Chains | Gender and Child Growth

2010–12   MASTER IN QUANTITATIVE ECONOMICS AND FINANCE | UNIVERSITY OF ST. GALLEN
Research for Dr. Piedro Veglio, Executive Director for Switzerland to The World Bank
Microhydropower in remote dev. countries, at The World Bank (D.C.)

2006-10   BSC ECONOMICS | UNIVERSITY OF GRONINGEN

2006-10   BA THEORETICAL PHILOSOPHY | UNIVERSITY OF GRONINGEN

Selected Research Papers

2017	"Global Value Chains in LICs"	*CTEI Working Paper Series*
2016	"Making the Next Billion Demand Access"	*CFD Working Paper*	*G7 briefing notes*
2015	"decompr: GVC decomposition in R"	*CTEI Working Paper Series*
2014	"Cryptocurrencies and Inflation"	*CFD Working Paper Series*

Conference Presentations

2016	"Making the Next Billion Demand Access: The Local-Content Effect of `google.co.za` in Setswana"	*EEA Annual Conference 2016*
2013	"Urban Violence and Collective Efficacy in Karachi and Dhaka"	*Pictet Foundation / Centre for Finance and Development Conference 2013*

Other Publications, Op Eds and Short Notes

2017	"Global Value Chains in Developing Economies"	*VoxEU*

Software Development

2016	`rnn` *CRAN.* Recurrent Neural Network architectures in native R. multilayer Recurrent Neural Networks (Deep Learning)	> 25000 downloads
2016	`datasets.load` *CRAN.* First Recurrent Neural Network in the R language. utilities and Graphical User Interface for loading datasets	> 40000 downloads
2015	`decompr` *CRAN*. Global Value Chain decomposition. Implementation of Wang-Wei-Zhu GVC decomposition algorithm	> 14000 downloads	Used for: World Bank GVC study, VoxEU GVCs eBook, WTO Annual Report
2015	`sigmoid` *CRAN*. Sigmoid functions (logistic, Gompertz), inverses (logit), and SoftMax
2015	`rddtools` *CRAN*. Framework for Regression Discontinuity Design	> 11000 downloads
2014	`gvc` *CRAN*. Tools for Global Value Chain analysis	> 10000 downloads
2014	`diagonals` *CRAN*. Tools for manipulating fat-diagonal matrices, e.g. block matrices

Other Publications

2017	Benefits of Local Content Hosting, *The Internet Society*
2016	Promoting Content in Africa, *The Internet Society*
2014	Diagnostic Local de Sécurité 2014 de Conakry (Guinée), *Coginta*
2013	Diagnostic Local de Sécurité 2013 de Genève (Suisse), *Coginta*

Affiliations

	Ifo Expert Group (University of Munich, for Switzerland)
	Centre for Finance and Development; The Graduate Institute, Geneva
	Centre on Conflict, Development and Peacebuilding; The Graduate Institute, Geneva