

Ainesh SEWAK

PhD Candidate in Biostatistics
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EDUCATION

<i>Current</i>	University of Zurich , Zurich, Switzerland <i>PhD Program in Epidemiology and Biostatistics</i> Supervisor: Prof. Dr. Torsten Hothorn
SEP 2021	ETH Zurich , Zurich, Switzerland <i>Master of Science in Computational Biology and Bioinformatics</i> GRADE: 5.80/6
DEC 2014	Actuaries Institute , Sydney, Australia <i>Associate Actuary, AIAA</i>
DEC 2013	Australian National University , Canberra, Australia <i>Bachelor of Actuarial Studies</i> GRADE: 3.87/4

WORK EXPERIENCE

MAR 2017- AUG 2018	Data Scientist at NEILSON FINANCIAL SERVICES , Los Angeles, USA Designed media attribution optimization algorithm to allocate £1m a month (R, SQL). Developed models for inbound and outbound call prioritization by using GBMs in H2O on historical call data to predict probability of purchase, paying and retaining a customer.
JAN 2014- MAR 2017	Senior Analyst at QUANTIUM , Sydney, Australia <i>Advanced Analytics and Machine Learning</i> Led a team to develop a proprietary tool for measuring promotional effectiveness <ul style="list-style-type: none">- cleansed raw data from multiple sources using Teradata SQL- trained price elasticity GLMs for each supermarket category in R- developed a robust statistical methodology for calculating product substitutability- built Excel and Tableau monitoring tools Business Achievement: tools' outputs part of KPIs of Category Managers and Suppliers Developed a recommendation engine for the Woolworths loyalty program <ul style="list-style-type: none">- built TB scale model file on a Hadoop cluster of 9m customers and their behaviour- developed Random Forests in H2O to calculate the probability of a shopper buying a particular product Business Achievement: The campaign delivers a 40% increase in weekly incremental revenue from the previous algorithm; There is 1pp growth in customer engagement

RESEARCH EXPERIENCE

<i>Current</i>	PhD Project, University of Zurich Supervisor: Prof. Dr. Torsten Hothorn ROC regression analysis in the framework of transformation models; Estimation of heterogeneous treatment effects for personalized medicine; Interpretation of stochastic dynamic interventions in causal inference
SEP 2021	Master's Thesis, Harvard University Supervisors: Dr. Jessica Young and Prof. Dr. Torsten Hothorn Estimating the causal effect of random dynamic treatment interventions for HIV prevention

SEP-OCT 2020	<p>Research project, University of Zurich</p> <p>Supervisor: Prof. Dr. Torsten Hothorn</p> <p>Assessed coverage of confidence intervals for hazard ratios based on the different likelihood estimates from discrete and continuous parameterisations of the baseline hazard from the Cox proportional hazards model</p>
JUN-AUG 2020	<p>Research project, ETH Zurich</p> <p>Supervisor: Prof. Dr. Nicolai Meinshausen</p> <p>Investigated glycemic exposure as a risk factor for intensive care patients using the MIMIC and eICU databases. Application of causal inference estimation techniques</p>
FEB-MAY 2020	<p>Research project, ETH Zurich</p> <p>Supervisor: Prof. Dr. Karsten Borgwardt</p> <p>Developed an algorithm for discovery of dependent subsequences in time series data</p>

CONFERENCE TALKS

Nov 2021	<p>NorPEN, Nordic PharmacoEpidemiological Network</p> <p>A general overview of G-methods in relation to pharmacoepidemiology</p> <p>Pre-conference course, Instructor: Dr. Jessica Young</p>
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AWARDS

DEC 2021	Willi Studer Prize, Best Master's Diploma, ETH ZURICH (CHF 3,000)
APR 2016	Winner of the DataJam Hackathon, NSW RUGBY LEAGUE (\$1,500)
OCT 2015	Employee of the Year, QUANTIUM (\$10,000)

SKILLS AND INTERESTS

Advanced:	R, SQL, \LaTeX
Intermediate:	Python, SAS, Bash
Languages:	English (native), Hindi (fluent), French (beginner)
Extracurricular:	Mountaineering, rock climbing, tennis, swimming, skiing, Cuban Salsa