

# MICHAEL SEO

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## EDUCATION

<b>University of Bern</b> <i>Ph.D. Biostatistics and Epidemiology</i>	<b>Bern, Switzerland</b> 2019 - 2022
<b>Brown University</b> <i>M.A. Biostatistics; GPA: 3.6/4.0</i>	<b>Rhode Island, USA</b> 2015 - 2017
<b>Stanford University</b> <i>M.S. Statistics; GPA: 3.7/4.0</i>	<b>California, USA</b> 2012 - 2014
<b>Duke University</b> <i>B.S. Statistics, Graduation with High Distinction; GPA: 3.7/4.0</i>	<b>North Carolina, USA</b> 2007 - 2011

## WORK EXPERIENCE

<b>Roche</b> <i>Access Evidence Lead</i>	<b>2022 - Present</b> Basel, Switzerland
<ul style="list-style-type: none"><li>Reviewed systematic literature review and feasibility assessment for indirect treatment comparisons (ITC) and wrote statistical analysis plans that outline the ITC analysis needed for the HTA reimbursement submissions.</li><li>Performed matching-adjusted indirect comparison (MAIC) for comparisons with only aggregate summaries of the comparator studies and inverse probability of treatment weighting and matching methods for studies with full individual patient data.</li><li>Developed an R package for MAIC which implements comprehensive analysis and visualization tools, including unanchored and anchored comparisons and robust sandwich and bootstrap variance estimators.</li></ul>	
<b>Institute of Social and Preventive Medicine, University of Bern</b> <i>Ph.D. Student in Biostatistics and Epidemiology</i>	<b>2019 - 2022</b> Bern, Switzerland
<ul style="list-style-type: none"><li>Compared variable selection and shrinkage methods for estimating patient-specific treatment effects in individual patient data meta-analysis.</li><li>Developed models that combine individual patient data from randomized controlled trials and observational studies when aiming to predict outcomes for a set of treatments.</li><li>Explored methods of addressing the systematically missing predictors problem, when the aim is to build a prediction model using data from multiple studies.</li></ul>	
<b>LLX Solutions</b> <i>Biostatistician</i>	<b>2018 - 2019</b> Massachusetts, USA
<ul style="list-style-type: none"><li>Drafted statistical analysis plans for Phase I trials which address study designs and methods on how to evaluate safety of the new drug in development.</li><li>Transformed raw clinical data into datasets that meet FDA standards using PROC SQL.</li></ul>	
<b>Department of Biostatistics, Brown University</b> <i>Ph.D. Student in Biostatistics</i>	<b>2015 - 2017</b> Rhode Island, USA
<ul style="list-style-type: none"><li>Developed an R package for Bayesian network meta-analysis which allows simultaneous comparison of multiple treatments.</li><li>Developed a Bayesian statistical tool to analyze single patient trials with crossover design and applied it to give individualized recommendations of carbohydrate diet for patients with inflammatory bowel disease.</li></ul>	

## SKILLS

**Programming:** R, Python, SAS

**Statistics:** Bayesian methods, (network) meta-analysis, causal inference