

## EDUCATION

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- 2022**                      **Massachusetts Institute of Technology (MIT)**  
**Master's in Data, Economics, and Development Policy – 5.0 GPA**  
**Courses:** Advanced Econometrics; Firms, Markets, Trade & Growth; Behavioural Economics; Causal Inference using ML and AI; Microeconomics; Development Economics; Political Economy
- 2015 – 2018**              **University of Oxford, New College**  
**BA in Experimental Psychology – First Class**  
**Gibbs Prize:** Best Library Dissertation  
**Proxime Accessit:** Second highest average mark in Preliminary Examinations

## WORK EXPERIENCE

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- Jun 2022 – Present**              **Analytics Consultant, World Bank, *Regional Vice President's office for Eastern and Southern Africa***
- Developing a constrained optimization AI model to recommend to management high-performing portfolio fund allocations across projects, based on historical and current multivariate indicators.
  - Designed a dashboard to monitor co-financing of projects by development partners in the region.
- Operations Consultant, World Bank, *Energy (Ethiopia)***
- Supporting Ethiopian Electrification rollout with analysis of smart grid implementation and support of the Ethiopian Electricity Utility in GIS, distribution and outage management, and power flow analysis.
- Operations Consultant, World Bank, *Social Protection (Malawi)***
- Analysing satellite data on forest and vegetation cover to evaluate impact of climate-smart public works
  - Developed KoBo forms to improve accountability: for foreman monitoring of public works attendance; for paypoint managers distributing funds; for registering payment claims.
  - Aggregated and cleaned catchment-level wage data in R to ensure timely payment of 270k households while isolating issues of duplicates and mismatched identification to minimise payment claims.
  - Mission to monitor the public works cycle, upgrading forms based on pilot feedback from government and foremen in the field, and leading training in R/python for data analysis for 30 government members
  - Helped guide design and upgrade of various IT systems including a monitoring app and multiple MISes, leading central design sessions and field-based surveys to map COREMIS modules to project needs.
  - Provided feedback on the Annual Budget Plan, specifically on IT systems rollout and decentralisation.
  - Received the AFE VPU award in 2024 for innovation in digital monitoring
- Operations Consultant, World Bank, *Social Protection (Republic of Guinea)***
- Used GPS-based Agglomerative Clustering in python for Training Group size and proximity scoping.
  - Developed KoBo forms with government field coordinators for community validation of 130,000 cash-transfer beneficiaries, GRM, and registry survey for Proxy Means Test (PMT) analysis.
  - Analysis and visualisation of PMT and validation data in R and Stata for government meetings on beneficiary targeting decisions, including fuzzy matching of datasets to use population projections
  - Supporting the implementation of an MIS and the data pipeline from KoBo tools to this MIS
  - Mission to train trainers on KoBo data collection and monitoring, ensure smooth implementation of KoBo surveys, manage data roles and permissions, and align data format with MIS requirements
  - Implemented a new mini-PMT using a grid search over Lasso in Stata to compare targeting techniques.
- Operations Consultant, World Bank, *Water (Horn of Africa)***
- Aggregated GIS layers in ArcGIS on existing water points, aquifers, and other sources to support learning and evaluation of identification.
  - Implemented a collection of crosslinked Kobo surveys feeding into a monitoring dashboard (Power BI). This streamlined tracking throughout the lifecycle of borehole and other groundwater investments, standardised upload of key Environmental and Social Framework information and documents, and provided a one-stop table for safeguard comments and follow-up.
- Operations Consultant, World Bank, *GEMS***
- Created dashboards for (1) the Yemen CMU to track project information and locations with public data on conflict, IDPs and food insecurity, and (2) security specialists for tracking missions and conflict.
  - Created python scripts to automate general and GIS ETL pipelines into ArcGIS and Power BI dashboards.
  - Technical support on integrating GBV services mapping data with a GBV helpline dashboard in Pakistan.
  - Co-lead on advanced technical requests, and internal workstreams on data pipelines and analysis.
  - Received two VPU awards in 2023 (AFE and GGH) and two in 2024 (LCR and GGI).

## Amschel Nathaniel de Rothschild

[www.github.com/amschel-de-r](https://www.github.com/amschel-de-r)

### **Operations Consultant, World Bank, Social Protection (Democratic Republic of São Tomé and Príncipe)**

- Mission to present an open-source MIS to address vendor lock in Angola and São Tomé and Príncipe.
- Lead automated data cleaning to consolidate registration expansion with existing partial data.
- Helped coordinate design and implementation of MIS with São Tomé and Príncipe government, including preparation of a video presentation to the Prime Minister.

### **Operations Consultant, World Bank, Social Protection Delivery Systems GSG**

- Helped design SPARKS, a comprehensive assessment across all phases of Cash Program delivery systems.
- Designed an accompanying web tool for conducting assessment interviews and generating graphs.
- Piloted the tool on Kenya's Consolidated Cash Transfer Program and Brazil's Bolsa Familia

**May 2024 – Present**

### **Co-Founder, Fair Trade for Lead, Non-profit Initiative**

- Multinational collaboration on lead regulation to incentivize cleaner recycling in developing countries.
- Supporting design of economic interventions to reduce lead pollution from battery recycling in Nigeria
- Research efforts on optimal incentive alignment for cleaner lead recycling across country profiles.

**Jun 2024 – Present**

### **M&E and Impact Evaluation Advisor, Better Nature, UK**

- Assisting UK tempeh company Better Nature in reviewing sponsored nutrition programs in Indonesia

**Mar – Jun 2022**

### **Economics Research Assistant, Clare Balboni, MIT**

- Processed high-resolution satellite rasters on deforestation in python, aggregating by year, country and tropics for analysis of deforestation in <https://doi.org/10.1146/annurev-economics-090622-024705>.

**Aug – Nov 2021**

### **Monitoring & Evaluation Volunteer, Child's Dream Foundation, Chiang Mai, Thailand**

- Cleaned and summarised evaluation data from Cambodia and Thailand scholarship programs, using SQL and python to automate data cleaning. Analysed and visualised data in Tableau for evaluation reports of these programs, and led the 2021 scholarship program review for Thailand.
- Supported the Laos team in developing M&E log tables and tools for their computer lab program
- Provided Google Apps Script coding to support the Project Management Specialist's program planner

**2019 – 2021**

### **Research Assistant, King's College London, Department of Forensic & Neurodevelopmental Sciences**

- Helped design and led coding of tablet touch-screen tasks to generate individual bio-behavioural profiles across multiple domains, ages, countries, and developmental delay, to improve predictions of therapeutic needs of those with neurodevelopmental conditions such as Autism and ADHD.
- Adapted battery for remote testing and data collection during pandemic, building a python command line app to automate data storage.
- Converted a python Bayesian Optimisation library into C#, using statistical learning to adapt difficulty to each participant's level in real time, minimising testing burden and further reducing floor effects.

**Aug 2018 – 2019**

### **Research Assistant, University College London, Psychology Department**

- Helped with the selection of papers, and the conversion and standardisation of data for subsequent analysis, for a large systematic review and meta-analysis of psychological treatments for chronic pain.
- Assisted with design and combined analysis in R of five undergraduate research projects evaluating the ethical practice of alternative medicine stores in dealing with customers with mental health concerns.

**Aug – Oct 2018**

### **Experimental Coding, University of Oxford**

- Assisted with an experimental design to measure the role of bodily state in perception of others' emotion. Coded the procedure in MATLAB, timing randomised stimuli with non-harmful electric shocks.

**2017 – 2018**

### **Research Project, University of Oxford**

- Designed and ran an RCT to examine how attention-focus cues affected associative-learning differences linked to depression; used Java to program an Android app to run the project as a gamified experiment.
- Remotely collected and analysed data on how participants with differing symptom levels of depression judged action-outcome relationship, with an additional between-subjects attentional manipulation.

## SKILLS

### **Coding & Software**

*Professional experience:* R, python, Stata, git, SQL, C#  
Django, JS, CSS/HTML

KoBo, Power BI, ArcGIS, SurveyCTO

*Project experience:* Java, MATLAB, React

SPSS, Gorilla, Docker

### **Languages**

French (Fluent); Portuguese, Italian, Spanish (Intermediate); Russian, Mandarin, Thai (Basic)