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## Education

## M.S. in Global Health and Population

Boston, MA

HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH

Aug. 2015 - May 2017

- Thesis title What We Expect When You're Expecting: Modeling the Obstetrics Ward at Tikur Anbessa Specialized Hospital, Ethiopia
- Received Experiential Learning Fellowship for project proposal (Study title: "Patient Flow in an Obstetrics Ward in Ethiopia")
- GPA: 3.64

**B.S.** in Mathematics Davis, CA

University of California, Davis

Sep. 2011 - Jun. 2015

· Graduated cum laude

• GPA: 3.83

# Experience \_

**Hospital IQ** Arlington, VA

**TECHNICAL ACCOUNT MANAGER** 

Jan. 2019 - Present

- Collaborate with hospital IT teams to integrate client data with Hospital IQ platform
- Ensure compliance of client data with Hospital IQ data specification using Python, SQL, and Bash.
- · Assist Client Operations team with various tasks, such as fixing data feed outages, setting up new data feeds, optimizing query performance, and ad-hoc reporting.
- Work with Hospital IQ Engineering team to develop integration with a leading EHR vendor.
- Contribute regular blog posts on hospital operations and analytics for company website.

CareJourney Arlington, VA

**DATA ANALYST** Sep. 2017 - Jan. 2019

- · Co-led back-end development in SAS and SQL and front-end development in Tableau of Network Advantage, a healthcare data product that generated over \$1 million in revenue
- · Contributed to flagship CareJourney population health platform by writing ETL code in SQL and designing customer-facing Tableau dashboards
- Wrote data-driven healthcare blog posts for the company website that received thousands of views
- · Refactored sections of existing SAS codebase, improving code legibility and reducing data processing time
- · Designed Python scripts to create custom, client-specific mailers to generate sales leads for CareJourney products
- · Managed relationships with two CareJourney clients by giving demo presentations to executives, maintaining regular cadence of communication, and providing ad-hoc analytic reports

## **Massachusetts Health Policy Commission**

Boston, MA

RESEARCH FELLOW

Aug. 2016 - Jun. 2017

**SUMMER FELLOW** 

Jun. 2016 - Aug. 2016

- Developed PostgreSQL database for 180 million medical and pharmaceutical claims in the Massachusetts All-Payer Claims Database (APCD), reducing processing time from minutes to seconds
- Trained Research and Cost Trends team members on new PostgreSQL database
- Developed statistical models in Stata to study low-value care identified using ICD-9 and HCPCS codes
- · Presented research results at internal policy meetings and wrote significant portions of manuscripts for publication
- · Collaborated with outside agencies for research on costs and patterns of opioid prescriptions identified with NDC codes
- Helped draft statement of work for the procurement of external consulting services

#### Harvard T.H. Chan School of Public Health

Boston, MA

RESEARCH ASSISTANT, DEPARTMENT OF GLOBAL HEALTH AND POPULATION

Jan. 2016 - May 2017 Sep. 2016 - Dec. 2016

TEACHING FELLOW, DEPARTMENT OF HEALTH POLICY AND MANAGEMENT

· Wrote study protocol and obtained Institutional Review Board approval for the collection of patient data at Tikur Anbessa Specialized

- Hospital (TASH) in Addis Ababa, Ethiopia (Study title: "Patient Flow in an Obstetrics Ward in Ethiopia") · Managed data collection from obstetrics and gynecology ward in Ethiopia and collaborated with medical residents to validate and
- classify data · Developed differential equations models of intervention growth and health workforce dynamics
- · Performed data analysis, linear and nonlinear regression modeling, and demand forecasting in Python and Stata
- · Presented research results at departmental meetings and wrote significant portions of manuscripts for publication
- · Hosted office hours and exam review sessions to help students with course material for Introductory Economics
- · Graded exams and maintained course website

## **Innovations Health Systems**

Rocklin, CA

RESEARCHER AND SOFTWARE ADMINISTRATOR

Jun. 2015 - Aug. 2015

- Provided CEO and COO with financial analyses of federally qualified health centers (FQHCs) in the Sacramento region and recently acquired acute care facilities in San Jose
- Managed and improved data quality in Salesforce customer relations management (CRM) database
- Performed regional competitor analysis using geographic information system (GIS) software

#### **University of California, Davis**

Davis, CA

Undergraduate Researcher

Oct. 2012 - Aug. 2014

- · Developed mathematical models of multi-patch disease transmission in R programming language
- Analyzed income and population data of the Sacramento Area Coalition of Governments (SACOG) to identify regions with high levels of elderly homeowners living in poverty and studied low-income housing projects in Davis

# Writing.

Modelling hospital operations: insight from using data from paper registries in the obstetrics ward at a hospital in Addis Ababa, Ethiopia

BMJ Global Health

BEN BIGELOW, DAWIT DESALEGN, JOSHUA SALOMON, AND STÉPHANE VERGUET

May 2019

Modeling the scale-up of antiretroviral therapy coverage in sub-Saharan Africa using growth curves

BMJ Open

BEN BIGELOW AND STÉPHANE VERGUET

Under review

Toward health system strengthening in low- and middle-income countries: insights from mathematical modeling of supply chains

**BMC Health Services** 

ABDULRAHMAN JBAILY, ISABELLE FELDHAUS, BEN BIGELOW, ET. AL.

Under review

Variation in low-value care among health systems in Massachusetts

Unpublished

Ben Bigelow, Aaron Pervin, Joshua Hollabaugh, and David Auerbach

Jun. 2017

# **Extracurricular Activity**

### **Arlington Public Libraries**

Arlington, VA

TECH HELP TUTOR

Jan. 2019 - Present

- Teach introductory courses on Python and SQL programming languages  $\,$
- Create course handouts, material, and exercises.
- Help library patrons with basic computer problems or questions during appointments, including those related to general computer use, creating and using e-mail or social media accounts, and file management.

AHC Inc.

Arlington, VA

MENTOR

Jun. 2019 - Present

- Met with a local Arlington high school student on a bi-weekly basis and advised her on academic performance, college applications, and scholarships.
- Participated in training to learn about resources and processes for college admissions and financial aid applications.

#### **Toastmasters International**

Arlington, VA

MEMBER

Feb. 2020 - Present

# Skills

**Programming** 

Coursework

Proficient in Stata, Python, SQL, Microsoft Office, SAS, Tableau; familiar with Flask, HTML, CSS, R, MATLAB, Spark, ArcGIS Econometrics for Health Policy, Economics of Health Care Policy, Applied Regression Analysis, Health Quality and Safety, Methods for Health System Analysis, Financial Management and Control