Bea Capistrant

Pronouns: she/they
Email: bcapistrant@gmail.com | Phone: +1-617-901-8967
LinkedIn Profile: www.linkedin.com/in/beacapistrant | Website: www.beacapistrant.com

Data Science Specialist & Leader

Machine Learning	**Regression & Predictive Modeling**
Data Visualization	**Relational Databases**
Experimentation	**Data Wrangling**
Technical Strategy	**Product Management**
Stakeholder Engagement	**Engineering Management**

Degrees:	**PhD,** Social & Behavioral Sciences, Harvard University
	MS, Social & Behavioral Sciences, Harvard University
	BA, History & Political Science, Boston University
Industries:	Health & Health Care, Pharma/Biotech, Public Sector, Non-Profit

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TECHNOLOGIES

Statistical Languages: Python, R, SAS, Stata
Data Engineering & Modeling: dbt, Talend
Version Control: Git. GitHub, Gitlab

Programming Languages: Python, HTML, CSS
Cloud Providers: Google Cloud Platform , AWS
Product Management: Agile, Jira, ClickUp

WORK HISTORY

Vice President, Healthcare Innovation and Research Lead, J.P. Morgan Chase   **(12/22 - present)**

Principal Data Scientist, Altais, Oakland, CA   **(04/22 - 12/22)**

- Designed data science tech stack, oversaw work of solutions architects and security team technical implementation
- Created first data models for health care claims and eligibility for 60k members over 3 years
- Led analysis that identified mechanisms to increase revenue capture and data quality
- Advised on investment in third-party data science models, guiding $500,000 investment
- Created study designs to evaluate staffing practices across 4 sites with over 300 providers and oversaw data ingestion, profiling for data quality

Staff Data Scientist, Cityblock Health, New York, NY   **(11/20 - 04/22)**

- Operated as Technical Lead of new scrum team, setting roadmaps and KPIs, and leading Data Analysts and Analytics Engineers within an agile framework toward those goals
- Led company-wide data science experimentation and outcome research initiatives

- Designed and analyzed company's first A/B tests, which showed 14 percentage-points higher member engagement based type of member outreach
- Developed longitudinal clinical and financial outcomes analyses for 8 clinical products
- Created and productionized an algorithm to identify members' spending trajectories
- Evaluated and refined predictive models for unplanned hospital admissions
- Used unsupervised learning methods for member segmentation and clustering

Associate Professor of Social Work (with tenure)**,** Smith College, Northampton, MA   **(2/20 – 11/20)**

- Engineered [Shiny-based apps to teach programming skills and statistical analysis](#) with a focus on social and behavioral science users
- Coordinated programmers working on developing interactive, open-source tutorials on statistics and modeling in R
- Programmed data cleaning algorithms to automate technical data reports from clinical research studies
- Hired and oversaw 15 adjunct faculty as interim department head of Research
- Organized and lead annual retreat for 15 faculty and administrators

Assistant Professor of Statistical & Data Science, Smith College, Northampton, MA   **(2017-2020)**

- Built data package in R to facilitate use of large data sets (2.3 million observations) from annual health surveys ([brfssR](#))
- Employed complex data sources and statistical modeling to investigate health disparities in mental health, substance use, and self-harm that led to 3 peer-reviewed publications and multiple presentations that articulate mental health policy recommendations
- Provided statistical analysis expertise for multiple randomized clinical trial designs (akin to AB testing)
- Taught [Multiple Regression](#) (including prediction, logistic regression, machine learning) modeling in R with course evaluations above college average (3.68 / 4) and mentored junior data science students on myriad analytics and data sources

Assistant Professor of Epidemiology, University of Minnesota, Minneapolis, MN   **(2013-2017)**

- Built predictive models and collaborated with expert peers on costs & health care utilization to recommend solutions for [Medicaid long term supports & services policy to state policymakers, stakeholders & constituents](#)
- Crafted study designs of successful research grants from American Cancer Society, University of Minnesota Global Spotlight; co-Investigator on National Institutes of Health (NIH) funded studies (total: >$5million)
- Fit regression models and communicated technical research study findings (18 peer-reviewed articles & 15 conference presentations) on major public health problems like hypertension, stroke, kidney disease, frailty, dementia, & disability
- Successfully mentored postdoctoral scholars in regression, technical communication

Postdoctoral Scholar, Demography, University of North Carolina - Chapel Hill   **(2012-2013)**

EDUCATION

Doctorate, Social & Behavioral Sciences, Harvard University (2012)
Masters, Social & Behavioral Sciences, Harvard University (2008)
Bachelors, History & Political Science, Boston University (2003)

ADDITIONAL EXPERIENCE

- **Volunteering**
  - **Member,** Global Advisory Board, Praava Health, Dhaka, Bangladesh **(2016-present)**
  - **Member,** Council on Aging, City of Northampton, MA **(2019-present)**
- **Awards**
  - **Fesler-Lampert Chair in Aging Studies**, University of Minnesota **(2014-2015)**
  - **Dissertation Fellowship**, Hewlett Foundation **(2011-2012)**
  - **Pre-Doctoral Fellowship**, American Heart Association **(2009-2011)**

- **Consulting Work & Prior Experience**

Health Outcomes Analytic Advisor, Praava Health, Dhaka, Bangladesh (2017-2019)
  - Generated study designs for health outcomes evaluation of membership plans of healthcare provider startup in emerging economy
  - Advised on health IT system Infrastructure, and facilitated connections to data science teams to work with database querying for medical records

Program Evaluation Consultant, Bronx Partnership for Healthy Communities, Bronx, NY (2018)
  - Conducted 4 session capacity building training on health outcome evaluation for Medicaid Delivery System Reform and Incentive Payment (DSRIP) program site
  - Provided research capacity technical assistance to support readiness for value-based care arrangements to 12 community-based health organizations

Study Manager, Fenway Health, Boston, MA (2004-2006)
  - Oversaw day-to-day research operations of a randomized controlled trial and a quasi-experimental study (n=400 total) of an HIV risk prevention intervention
  - Managed team, including 2 direct reports, to hit recruitment and retention targets