Robert Brown

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EDUCATION

UC BERKELEY
MPH in Biostatistics & Epidemiology
May 2017 | Berkeley, CA

UC DAVIS
BS in Exercise Biology
BA in Psychology
May 2011 | Davis, CA

EXPERIENCE

BERLIN BRANDS GROUP | Data Engineer
October 2021 - May 2022 | San Francisco, CA
- Created and implemented computing, reporting, and ETL infrastructure.
- Developed multiple Django applications using dedicated servers and AWS cloud products. Applications include a prospecting tool for brand acquisition, monitoring product purchase behavior and predict future revenue growth using data ingested from data mining, operational and third-party data API end points.

LOS ANGELES CO. PUBLIC HEALTH DEPT. | Data Scientist
January - October 2021 | Los Angeles, CA
- Created multiple interactive internal and public facing dashboards displaying infectious disease data for LA County (R and Python).
- Developed a whole genome sequencing (WGS) database and implemented ETL pipelines, implemented in Airflow, processing tens of inputs and 100s of GBs of epidemiologic, genomic sequence data and associated metadata.

INSIGHT FELLOWS | Health Data Science Fellow
September 2020-November 2020 | San Francisco, CA
- Consulted with an organization to provide a churn model using client records.
- Used advanced SQL querying to bring together 10+ tables, and engineered features such as generating an engagement score.
- Used survivor analysis to generate a probability of churning over time as well as built a binary classifier using logistic regression with lasso regularization to achieve 78% ROC AUC.

ALAMEDA COUNTY PUBLIC HEALTH DEPARTMENT |

Epidemiologist II
August 2019-Present | Oakland, CA
- Lead analyses and surveillance reporting of tuberculosis and over 70 other notifiable acute communicable diseases such as the measles and COVID-19 (R and SAS).
- Served as Data Chief for the Data Branch for the COVID-19 ICS response, managing up to 25 data entry staff, program staff and other epidemiologists leading data system development and analytical capacity.
- Developed and maintained ETL pipelines, and 8 SQL Server databases, and complex VBA featured Access applications with PowerShell installation and versioning.

HIV Data-to-Care Specialist
August 2018-August 2019 | Oakland, CA

- Managed the HIV Data-to-Care program for the county, leveraging various case management and surveillance data with integrated inter-departmental work-flows to increase the number of HIV positive residents in care.

TRILOGY EDUCATION | Substitute Instructor & Teacher assistant, Data Analytics
July 2019 - July 2020 | Berkeley, CA
- Assisted teaching fundamentals of computer science, programming, Git, Bash, data munging, visualization, web development, project management, and machine learning to multiple different classes of students through the UC Berkeley Data Analytics Boot Camp.

METHOD DATA SCIENCE | Resident Data Scientist
November 2018 - April 2019 | Remote Work
- reated an ensemble machine learning algorithm (R) to predict if and when a hip replacement surgery will be needed using EHR and insurance data for a Bay Area biotech start-up with 77% AUC.
- Developed a Dash (Python) dashboard using KPI's and unsupervised learning to segment customers to create targeted marketing resulting in 13% increase in customer base within 6 months.

CALIFORNIA RURAL INDIAN HEALTH BOARD | Epidemiologist
October 2017-August 2018 | Sacramento, CA
- Developed state wide data collection and disease surveillance tools, IRB and data management, and wrote complex grants to secure future funding.
- Developed a data warehouse to store internal data and various state data sources, and provided various automated reporting for various grant tracking and for various leadership staff.

UCSF SCHOOL OF MEDICINE | Statistician
June-August 2017 | San Francisco, CA
- Consulted with several research teams to provide multiple high dimensional figures, and provided mathematical modeling and statistical for publications on multi-drug resistant tuberculosis (R).
- Provided multiple imputation on survey question that was systematically missing by sourcing comparable datasets resulting in being able to use validated survey tool.

UC BERKELEY | Graduate Student Researcher
August 2016-March 2017 | Berkeley, CA
- Conducted analysis on the accuracy of population estimates of those with a genetic disorder or genetic determinants (e.g. cancer, congenital malformation, etc.) with those of elusive populations (e.g. drug addiction) using both non-Bayesian and Bayesian methods.

GOOGLE | Public Health Data Specialist
May-December 2016 | Mountain View, CA
- Responsible for data curation, data analysis of existing public health and medical research.
- Curated, verified, and provided expert feedback to improve the information in the health knowledge graph and related algorithm performance.

SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH | Research Analyst
May-December 2016 | San Francisco, CA
- Conducted various statistical analyses, mathematical modeling, data management, and data interpretation on over four studies involving randomized control trials of pharmacologic interventions to treat substance use, HIV risk, and a prospective longitudinal study among transgender youth.

UC BERKELEY | Center for Health Leadership (CHL) Fellow
October 2015 - May 2017 | Berkeley, CA
- Selected to participate in a three-semester leadership development program.
- Learning activities include: consulting project with non-profit agency, training workshops, needs assessment, project management and meeting facilitation.

AMITY FOUNDATION | Program Coordinator
February - August 2015 | Los Angeles, CA

- Managed reporting, program evaluation and program implementation for grant that provided mentors to formerly incarcerated individuals.
- Implemented program plan, maintained program management efforts for a financial literacy grant entitled, Financial Empowerment.
- Provided interim support as financial literacy coach, and served as a mentor to formerly incarcerated individuals re-entering back into society.

NATIVE AMERICAN HEALTH CENTER |

DATA COORDINATOR
February 2014 - Mar 2015 | Oakland, CA
- Managed data collection, entry and analysis for health clinic that saw over 15 thousand patients at three sites in the San Francisco Bay Area. Supervised two Data Assistants.
- Created clinical and behavioral health reports from EHR with SQL for board of directors, clinicians, staff, and the public that included the status of the clinic and grant funded projects.
- Provided evaluation and project management on a technology integration grant that helped fund the creation of the clinics EHR service.

PREMEDICAL INTERN
October - December 2012 | Oakland, CA
- Observed attending physician, Dr. Christopher Alexander, in the medical department of the Native American Health Center in San Francisco, CA.
- Duties included: observing doctor/patient interactions, weekly presentations, graded tests and final exam. Also, under the attending physician's supervision, provided relevant medical context to patients.

DATA ASSISTANT
June 2012 - February 2015 | Oakland, CA
- Responsible for GPRA and other survey data collection, health behavior data entry, and technical and statistical reporting of over 15 grants.
- Other roles included: consenting survey participants, determining insurance eligibility, entering clients into different health care tracking systems, and performing HIV rapid tests and HIV counseling.

DATA & EVALUATION INTERN
June 2012 - February 2015 | Oakland, CA
- Assisted with the transition from paper medical record data to electronic health records (EHR) by developing NEXTGEN training guides for clinicians.
- Proctored EHR trainings to clinical and administrative staff and developed EHR training materials.

UC DAVIS | RESEARCH ASSISTANT
September 2008 - June 2011 | Davis, CA
- Collected, maintained, and evaluated data on mutations of cardiac Troponin T and cardiac Troponin C and their relation to familial cardiomyopathies. Proteins were expressed in KO mice using in vitro techniques and structurally analyzed via homology modeling.
- Performed various molecular biology techniques such as gel electrophoresis, and western blots to determine relative levels of Ubiquitin levels and proteasome activity expressed KO mice.

ABSTRACTS, PUBLICATIONS & PRESENTATIONS
- Lloyd T, Bender M, Huang S, Brown R, Shiau R, Yette E, Shemsu M, Pandori M. Assessing the Use of Polymerase Chain Reaction to Screen for shedding of Salmonella enterica in infected humans. J Clin Microbiol. 2020.
- Allgeier D, Gebreegziabher E, Ycasas J, Murgai N, Brown RE, Moss N. HIV in Alameda County, 2015-2017. 2018; http://www.acphd.org/media/532487/hiv2018_ac.pdf
- Brown RE, Turner C, Hern J, Santos GM. Partner-level substance use associated with increased sexual risk behaviors among men who have sex with men in San Francisco, CA. Drug Alcohol Depend. 2017;176:176–80.

- Brown RE, Gomes AV. Understanding Cardiomyopathies through a Molecular Modeling Approach (Poster). Presented at the 2011 Undergraduate Research Scholarship, and Creative Activities Conference, Davis, CA.

OTHER TEACHING EXPERIENCE

SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH | Guest Lecturer
July 2016 | San Francisco, CA
- Co-lecturer on Threats to Validity and Causal Inference to undergraduates participating in National Institute of Mental Health (NIMH)-funded Summer HIV/AIDS Research Program (SHARP) at the San Francisco Department of Public Health.

BAYEMT | EMT Skills Instructor
July 2016 | San Francisco, CA
- Taught various Emergency Medical Technician (EMT) skills to students.
- Provided review sessions for students the National Registry of Emergency Medical Technicians (NREMT) exam.

UC DAVIS | Teaching Assistant
January 2011 | Davis, CA
- Taught various labs focusing on anatomical and physiological features of the human body using cadavers to undergraduate and graduate students during weekly laboratory meetings.
- Conducted weekly office hours, review sessions for exams and was responsible for maintaining the preservation of the cadavers.

SKILLS

PROGRAMMING/TECHNOLOGIES
- R • SQL • Python • SAS • Stata • Tableau • ArcGIS • BASH • VBS • git • LaTeX• JSON • HTML • XML • CSS • AWS • VBA • JavaScript • Flask • D3.js • Leaflet • Hadoop • Spark • Plotly • Pandas • NumPy • Scikit-learn, TensorFlow • AWS • D3.js • Tableau • Flask • Shiny • ArcGIS • Leaflet • GeoPandas

MACHINE LEARNING/STATISTICS
- ensemble methods • dimensionality reduction • regularization • clustering • survivor anaysis • NLP • neural networks

PROFESSIONAL
- Project Management • Research • Academic Writing • Study Design • Survey Design • Database Creation • Database Management • Data Management • Grant Writing • Program Evaluation

COURSEWORK

GRADUATE
- Big Data for Public Health • Causal Inference • Hierarchical and Longitudinal Modeling • Multivariate Statistics • Outbreak Investigation • Intermediate SAS Programming • Program Planning, Development, and Evaluation • Health Care Organizations and Management • Impact Evaluation • Design Thinking • Interpretation of Computer Programs

INDEPENDENT COURSEWORK
- Machine Learning in Python • Python Programming • R Programming • Managing Big Data with MySQL • Data Visualization with Tableau • Plus over 30 data/programming related online courses

UNDERGRADUATE
- Multivariate Calculus • Linear Algebra • Physics • Chemistry • Biology

PUBLIC SERVICE

- **MENTOR** | GETTING INTO GRADUATE SCHOOL (GIGS) AT UC BERKELEY
  September 2015 - May 2017 | Berkeley, CA

- **MENTOR** | AMITY FOUNDATION
  March - August 2015 | Los Angeles, CA.

- **HIV TESTER & COUNSELOR** | NATIVE AMERICAN HEALTH CENTER
  July 2013 - December 2014 | Oakland, CA

- **YOUTH SERVICES OUTREACH INTERN** | THE AMERICAN RED CROSS
  December 2011 - June 2012 | Oakland, CA

- **VOLUNTEER CASEWORKER** | THE AMERICAN RED CROSS
  October 2011 - June 2012 | Oakland, CA

- **MATH TUTOR** | DAVIS BRIDGE
  January 2008 - June 2011 | Davis, CA

- **INTERN** | CLINICA TEPATI
  September 2007 - June 2008 | Sacramento, CA

AWARDS & FELLOWSHIPS

- Grow with Google Challenge Scholarship, Google via Udacity, January 10, 2018.
- Graduate Opportunity Program (GOP) School of Public Health Full Fellowship award, University of California, Berkeley, April 15, 2015.
- Graduate Opportunity Program (GOP) School of Public Health Full Fellowship award, University of California, Berkeley, April 15, 2015.
- Commendation [for public service and dedication to improve quality of life in Alameda county communities], Alameda County Board of Supervisors, San Leandro, May 21, 2012.
- Recipient, Research Scholar Award, University of California, Davis, April 29, 2011.