

HANA AKBARNEJAD

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EDUCATION

COLUMBIA UNIVERSITY, MAILMAN SCHOOL OF PUBLIC HEALTH

Master of Science (MS) in Biostatistics, Theory and Methods Track

Related Courses: Data Science I & II, SQL, Statistical Inference, Probability, Biostatistical Methods, Epidemiology

New York, NY

Expected May 2021

UNIVERSITY OF TEHRAN

Master of Science (MS) in Nanobiotechnology

Related Courses: Experiments Design and Statistical Data Analysis, Bioinformatics

Tehran, Iran

Feb 2017

UNIVERSITY OF TEHRAN

Bachelor of Science (BS) in Cellular and Molecular Biology

Related Courses: C++ Programming, Biostatistics

Tehran, Iran

Feb 2013

RESEARCH/WORK EXPERIENCE

COLUMBIA UNIVERSITY, MAILMAN SCHOOL OF PUBLIC HEALTH

Project: Investigation on how Smartwatch and reported data are related to flare among rheumatoid arthritis patients

Feb 2020 - Present

- Transforming and joining data from different sources into a relational database
- Developing predictive Generalized Linear Models for disease outcome

Project: Statistical modeling to investigate gender discrimination in the field of medicine

Dec 2019

- Data wrangling, exploratory data analysis (EDA), and data visualization using R
- Performed variable selection, model diagnostics and validation

Project: Statistical investigation on the effect of public health initiatives on opioid crisis in New York City

Dec 2019

- Extracted and joined multiple datasets from different government resources
- Visualized spatial and temporal trends using Shiny, Plotly, and animated plots in R
- Built models using stepwise regression and assessed model prediction using cross validation and bootstrapping techniques
- Utilized unsupervised learning to compare outcomes from different areas

RESEARCH ASSOCIATE

TARBIAT MODARES UNIVERSITY (In collaboration with the University of Tehran)

Sep 2015 - Feb 2017

Project: Assess the effect of nanoparticles (widely used in drug delivery) on health outcomes

- Analysis and visualization of datasets using statistical software SAS, SPSS, GraphPad Prism
- Prepared research reports in a comprehensible way for professionals and non-professional audience

LEADERSHIP

COLUMBIA UNIVERSITY, MAILMAN SCHOOL OF PUBLIC HEALTH

Jan 2020 – Present

HEALTHCARE DATA ANALYTICS ORGANIZATION

Vice President of Operations

Defining and implementing strategy and processes for organizing various social, academic, skills-based workshops, and networking events in the field of data science for graduate students

HONORS AND AWARDS

- Was offered merit-based scholarships from graduate schools such as Brown, Cornell, and Northwestern Feb 2018
- Honored as “Exceptional Talent of University of Tehran” for exceptional performance in thesis Feb 2017
- Honored as “Exceptional Talent of University of Tehran” for getting ranked top 10% of peers Feb 2013
- Ranked in top 0.4% among undergraduates who took the graduate studies entrance exam Aug 2013

SKILLS

- Statistical skills: Statistical Modeling and Model Selection, Linear and Non-linear Regression, Estimation Statistics, Unsupervised Learning methods, Machine Learning Algorithms and Regularization (Lasso, Ridge, and Elastic Net Regression Analysis)
- Programming languages and statistical packages: Python, R, SAS, SPSS
- Data visualization and reporting tools: R Shiny, R Markdown, Plotly, Tableau
- Database: Relational Database Design, MySQL, Microsoft Access
- General: Linux, Git, Microsoft Office (Word, Excel, PowerPoint), LaTeX

Legal permanent resident, authorized to work in the United States with no limitation