DILSHER SINGH DHILLON

I'm an applied statistician with expertise in applying both traditional and modern statistical methods to solve business problems. I'm an advocate for reproducible workflows and an avid user of R markdown documents and docker containers. I'm looking for opportunities where I can leverage my statistics training to quantify uncertainty to aid in better decision making.

EDUCATION

2015 | 2017
Texas A&M University
Master's in Statistics
College Station, TX
Summa Cum Laude

2010 | 2012
Texas A&M University
Master's in Biotechnology
College Station, TX
Cum Laude

2006 | 2010
Panjab University
Bachelor of Engineering
Chandigarh, India

WORK EXPERIENCE

March 2019 | Present
Shell International Exploration and Production
Statistician
Houston, TX

- *Shell commercial products*
  - Help improve the line of products offered by Shell by assisting researchers implement optimal experimental designs
  - Developed novel experimental methods to make inferences on important metrics
  - Analysis of randomized experiments and higher-order factorial designs
  - Building data models from complex unstructured data to conduct meaningful statistical analysis
  - Effective communication of results to stakeholders aiding in optimum decision making
- *Drilling operations*
  - Delivered a well calibrated probabilistic map of a region of interest that indicates risk of encountering hazards
  - Provide statistical input to the business unit on decisions to turn work on/off
  - Building interpretable machine learning models to drive decision making

2018 | 2019
Baylor College of Medicine
Statistician
Houston, TX

- *Identifying risk factors for poor outcomes in co-infected TB-HIV patients*
  - Worked with clinicians in Africa to extract longitudunal data for ~25000 subjects
  - Developed a statistical model to understand risk factors that are associated with poor TB outcome - which leads to better patient management guidelines for high risk countries.
- *Studying underlying epigenetic mechanism of TB infection*
  - Processed methylation data from EPIC arrays consisting of ~850,000 individual probes
  - Automated a pipeline in Python for merging of patient data from clinical research forms in eSwatini

2013 | 2018
MD Anderson Cancer Center
Research Investigator
Houston, TX

- Promoted to a supervisory capacity to oversee assay development of novel biomarkers and testing of in-house and commercial assays in clinical samples for validation
- Managed the Specimen Manger database for recording subject characteristics, bio-specimen banking and inventory and multicenter study inventory for the Lung Cancer Early Detection trial

CONTACT

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dhillon_stats
Webpage

SKILLS

Statistics ∞

Generalized Linear Models
Design of Experiments(DOE)
Heirarchical Models
Bayesian Inference
Non-linear Statistical Models
Time-series Regression and Forecasting

Software

R, Stan
Python, SQL
Git, Docker
Package Development in R
Unit-testing
Shiny application development

Consulting

Experience in statistical consulting
Gathering key subject expertise from clients
Working closely with decision makers to frame relevant questions
Effective communication to non-technical audience

Permanent US Resident