AMBER AHMED

I have studied medicine, engineering and data science. I have worked in diverse set of industries. I believe that one way of finding efficient and long lasting solutions to existing problems is by harnessing the power of data. I have spearheaded data visualization and automation projects that have been critical in identifying process mismatch, reducing engineering time and associated labor costs.

Currently searching for a position that allows me to build data-driven solutions leveraging a combination of process engineering and data science to help create robust chemical manufacturing processes.

🎓 EDUCATION

Introduction to Machine Learning with Tensorflow Nanodegree

Online

📍 Udacity

2021 | 2020

- Expected March 2021. Studying machine learning methods for supervised learning, deep learning and unsupervised learning using pandas, numpy, scikit learn, keras and tensorflow.
- Links to Github repositories containing supervised learning[1] and deep learning[2] projects.

Programming for Data Science with R Nanodegree

Online

📍 Udacity

2020 | 2020

- Studied SQL for data analysis, programming with R , command line essentials and git bash
- R programming project can be accessed here[3]

B.S.E Chemical Engineering

Arizona State University

📍 Tempe, AZ

2015 | 2010

- GPA 3.34

M.B;B.S.

King Edward Medical University

📍 Lahore, Pakistan

2008 | 2005

- Studied human anatomy, physiology and biochemistry. Passed first professional (part 1&2) in first division.

🖥 RESEARCH EXPERIENCE

Undergraduate Researcher

Gallitano Lab

📍 University of Arizona College of Medicine

2012 | 2010

- Analyses of genetic data from schizophrenic patients using genomic association software PLINK, PBAT and FBAT.
- Publication[4]
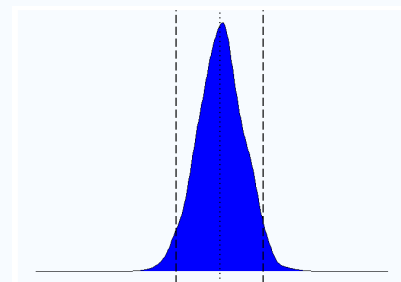
CONTACT

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amberahmed.netlify.app

linkedin.com/amberahmed

LANGUAGE SKILLS
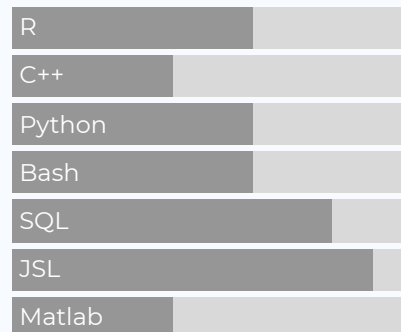
Skill	
R	
C++	
Python	
Bash	
SQL	
JSL	
Matlab	

📖 PUBLICATIONS

2016

● **EGR3 and ARC association to schizophrenia[5]**
PLoS One

- Performed hypothesis testing for various population datasets which served as the basis of this publication by exhibiting a strong correlation between EGR 3 and schizophrenia risk.

💼 INDUSTRY EXPERIENCE

**2018
|
2017**

● **Engineer II**
Illumina Inc.   📍 San Diego, CA

- Led process inventory, and resource management as well as, planning and scheduling for proto part assembly during the critical design verification test phase for iSeq100 consumable cartridge. Served as a liaison between the product development and NPI teams.
- Constructed html dashboard for continuous reporting of proto process quality metrics (line yield, process yield, failure pareto etc.). Automated control charts for 40 critical parameters reported by 11 process and QC (quality control) tools with JSL and R scripts.
- Completed two week long offsite training for programming liquid handling robotic systems.

**2017
|
2016**

● **Process Engineer**
Intel Corporation   📍 Chandler, AZ

- Owned and lead the stability, performance, and improvement functions of highly advanced photolithography equipment which provides operational support to Intel's 10nm and 14nm chip manufacturing processes.
- Recognized for leading an effort to analyze and explain low parametric matching scores as a function of inherent variability in the equipment. Used IP database script and SQL database query for data extraction and JMP for data manipulation and analyses.
- Recognized for automating process control system daily report for module morning pass down saving more than 100 hr./year of indirect labor cost.

**2015
|
2015**

● **Research and Development Intern**
Henkel Consumer goods   📍 Scottsdale, AZ

- Design of experiment (DOE) using mixture design for improving performance of a laundry detergent formulation.

**2012
|
2012**

● **Process Engineering Intern**
ch2m hill   📍 Tempe, AZ

- Worked on a client project that involved detailed design, programming and support during construction for building a semiconductor fabrication plant for a client.

I have worked as a process engineer in high volume manufacturing as well as R&D. I have created a process analytics dashboard for a process with more than 40 critical parameters. I have led a team of technicians on R&D process manufacturing floor while serving as the liaison for cross functional team collaboration. I have completed training in process design for six sigma and robotic process automation. I perform best in a collaborative work environment.

📈 DATA SCIENCE WRITING

2021 ● **From Engineering to Data Science**[8]

· Used Python for analyzing data from Kaggle 2020 Data Science and Machine Learning survey. The goal of the notebook was to highlight the tools and methods used by survey responders in engineering jobs.

2020 ● **Bikeshare data analysis**[9]

· Used R to create summary and visuals showing popular travel times, trip duration and user stats for the data provided by Udacity.

🔗 LINKS

1: https://github.com/AmberHabib/Finding_donors_for_charityML
2: https://github.com/AmberHabib/UdacityDeepLearningProject
3: https://amberahmed.netlify.app/bikeshare_populartraveltimes.html
4: https://pubmed.ncbi.nlm.nih.gov/26474411/
5: https://pubmed.ncbi.nlm.nih.gov/26474411/
6: https://amberahmed.netlify.app/
7: https://www.kaggle.com/lohaargali
8: https://www.kaggle.com/lohaargali/from-engineering-to-data-science
9: https://amberahmed.netlify.app/bikeshare_populartraveltimes.html

I have recently started writing about engineering and statistics on my website[6] and Kaggle[7]