

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

- 2024
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2021

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Masters of Science in Data Science Online
Online

📍 University of Texas at Austin

 - Completed coursework: Probability and simulation based inference, Data Structures and Algorithms, Regression and predictive modeling, Design Principles for causal inference, Advanced Predictive Models. GPA 3.75/4.0
 - Course list⁷
- 2021
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2020

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Introduction to Machine Learning with Tensorflow Nanodegree
Online

📍 Udacity

 - Studied machine learning methods for supervised learning, deep learning and unsupervised learning using pandas, numpy, scikit learn, keras and tensorflow.
 - Supervised learning², deep learning³ and unsupervised learning project.⁴
- 2020
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2020

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Programming for Data Science with R Nanodegree
Online

📍 Udacity

 - Studied SQL for data analysis, programming with R, command line essentials and git bash
 - R programming project can be accessed here⁵
- 2015
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2010

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B.S.E Chemical Engineering
Tempe, AZ

📍 Arizona State University

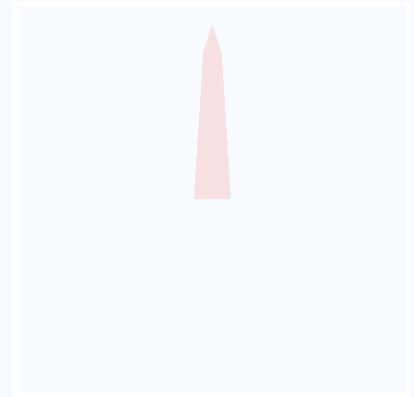
 - GPA 3.34
- 2008
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2005

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M.B;B.S.
Lahore, Pakistan

📍 King Edward Medical University

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



View this CV online with links at [_https://amberahmedcv.netlify.app/_](https://amberahmedcv.netlify.app/)

CONTACT

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github.com/AmberHabib
amberahmed.netlify.app
[in linkedin.com/amberahmed](https://linkedin.com/amberahmed)

LANGUAGE SKILLS

R	
Python	
Bash	
SQL	
JSL	

Made with the R package [pagedown](#) and [datadrivencv](#).

The source code is available on github.com/amberhabib/cv.

Last updated on 2023-03-07.



RESEARCH EXPERIENCE

2012
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2010



Undergraduate Researcher

Gallitano Lab

📍 University of Arizona College of Medicine

- Analyses of genetic data from schizophrenic patients using genomic association software PLINK, PBAT and FBAT.
- Publication⁶



PUBLICATIONS

2016



EGR3 and ARC association to schizophrenia⁷

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
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2017



Engineer II

San Diego, CA

📍 Illumina Inc.

- 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
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2016



Process Engineer

Chandler, AZ

📍 Intel Corporation

- 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.

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.

- 2015
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2015
 - **Research and Development Intern**
Scottsdale, AZ 📍 Henkel Consumer goods
 - Design of experiment (DOE) using mixture design for improving performance of a laundry detergent formulation.
- 2012
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2012
 - **Process Engineering Intern**
Tempe, AZ 📍 ch2m hill
 - Worked on a client project that involved detailed design, programming and support during construction for building a semiconductor fabrication plant for a client.

DATA SCIENCE WRITING

- 2023
 - **Oregon Wildfires¹⁰**
 - Used R for analyzing geospatial data from stochastic process.
- 2021
 - **From Engineering to Data Science¹¹**
 - 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
 - **The Balancing Act¹²**
 - Central limit theorem and its connection to philosophical arguments

I have recently started writing about engineering and statistics on my website⁸ and Kaggle⁹

LINKS

- 1: <https://ms-datascience.utexas.edu/courses#courses>
- 2: https://github.com/AmberHabib/Finding_donors_for_charityML
- 3: <https://github.com/AmberHabib/UdacityDeepLearningProject>
- 4: <https://github.com/AmberHabib/UdacityUnsupervisedLearningProject>
- 5: https://amberahmed.netlify.app/bikeshare_populartraveltimes.html
- 6: <https://pubmed.ncbi.nlm.nih.gov/26474411/>
- 7: <https://pubmed.ncbi.nlm.nih.gov/26474411/>
- 8: <https://amberahmed.netlify.app/>
- 9: <https://www.kaggle.com/lohaargali>
- 10: https://amberahmed.netlify.app/oregon_wildfires.html
- 11: <https://www.kaggle.com/lohaargali/from-engineering-to-data-science>
- 12: <https://medium.com/mlearning-ai/the-central-limit-theorem-faaba8261a0f>