Omar Ali

San Francisco, CA· Omarh90@gmail.com · github.com/Omarh90

Education

University of Illinois at Urbana-Champaign: December 2012
Bachelor of Science in Mathematics GPA: 3.24/4.00
Bachelor of Science in Chemistry

Highlighted Projects

EHR Clinical Database Harmonization: Python, SQL, XML, NoSQL, AWS Melissa Informatics
· Overhauled ETL legacy pipelines for tenfold SQL DB scaleup & extensive schema changes December 2018
· Remediated data integrity for patient IDs, creating graphics to illustrate data corruption cause and scope

NLP Histopathology Scan Digitization: R, SQL, ML Melissa Informatics
· Independently wrote prototype for medical file NLP processing, including advanced statistics March 2019
· Compared multidimensional feature clusters to differentiate medical forms using matrix algebra

Image Processing Numerical Integration Application: Python McCampbell Analytical
· Identifies features and numerically integrates signal to correct erroneous software calculations August 2018
· Includes UI (OOP-tkinter), automatically generating report using multinomial calibration and OCR

Experience

Code for San Francisco: July 2019 – Present
ShelterTech Dev & Analytics Team (Volunteer)
· Critiqued CA Department of Motor Vehicles website through DMV Strike Team user interface testing
· Active member of ShelterTech data & dev team, supporting website hosting homeless resources in SF

Melissa Informatics: November 2018 – June 2019
Knowledge Engineer (Data Engineer) Berkeley, California
· Integrated EHR databases, independently troubleshooting and learning NoSQL tech stack for scale-up
· Analyzed histopathology scans using R, including ML, NLP, & OCR analysis, and database export
· Ensured HIPAA compliance by implementing relevant CFR codes, conducted technical interviews

McCampbell Analytical: August 2017 – October 2018
Research & Development Analytical Chemist Pittsburg, California
· Wrote Python image processing program to correct faulty software calculations, including user interface
· Routinely queried data in MS Access-based LIMS relational database, processing data in Excel
· Developed organic chemistry extraction methods and served as technical client consultant

Northwestern University: September 2016 – August 2017
Quantitative Bio-Element Imaging Center, Research Technologist II Evanston, Illinois
· Prepared clinical early phase I FDA data validation package, using QC statistics and graphical summaries
· Trained graduate students in data analysis and troubleshooting in R, and maintained lab's WordPress site
· Troubleshoot multi-dimensional data processing from laser ablation optical emission mass spectrometry

University of Illinois, Urbana-Champaign: March 2014 – August 2016
Center for Chemistry and Technology, Assistant Analytical Chemist Champaign, Illinois
· Wrote dynamic, user-friendly VBA code to parse, seek, and compute QC criteria in large data array
· Increased throughput four-fold for ICP-OES analysis, including streamlining data processing

Technical Skills

Programming: Python (keras, pandas, pyspark), R, MATLAB, C/C++ · **Web:** HTML, XML, AWS
Database: SQL, NoSQL · **Stats:** Machine Learning/Deep Learning, ANOVA, Regression, Time Series
Developer Admin: Jira, Git, Confluence · **OS:** Linux, Windows · **Software:** MS Office, Excel
Chemistry & Life Sciences: HR-ICP-MS, GC-MS, HF, HPLC, PCR/PAGE, Syringe technique