

Michael Algarra

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Education

Drexel University

Bachelor of Science in Biomedical Engineering

Concentration in Bioinformatics, Certification in Japanese Language

Philadelphia, PA

Graduation: June 8, 2022

GPA: 3.45

Employment Experience

Merck & Co.

West Point, Pennsylvania

Automation Data Scientist / Analyst Contractor

September 2022 - Present

- Parsed and manipulated robotics generated data for pre-clinical / clinical research lab analytics
- Created large scale project tracking application with a user friendly interface using Microsoft Powerapps
- Contributed with data pulling and data visualization of scientific data using Python and Spotfire

Children's Hospital of Philadelphia

Philadelphia, Pennsylvania

Bioinformatics Research Intern

September 2020 -September 2021

- Assisted in research in epigenetics associated with CHOP and The University of Pennsylvania
- Conducted analyses of DNA methylation data, including statistical tests proving correlations using R
- Cleaned and packaged data, used unix and bedtools to analyze and mutate genetic data

Merck & Co.

West Point, Pennsylvania

Global Vaccine Tech Ops: Digital & Data Analyst

September 2019 - September 2020

- Analyzed and manipulated data from a data lake using Excel, R, Pipeline Pilot, JMP, Minitab, and Spotfire
- Programmed an automated data pulling tool to pull live manufacturing data for accessibility in Pipeline Pilot
- Contributed with data analysis for big biological data with the usage of SQL data queries and OSI PI queries
- Communicated internationally to optimize handling of digital data and manufacturing processes in multiple sites

Globus Medical

Audubon, Pennsylvania

Biomaterials Project Engineer

September 2018 - April 2019

- Assisted Engineers in designing, testing, and developing prototypes to be used in spinal surgery
- Developed a method for bone graft and synthetic bone graft delivery using Creo Parametric and SLA 3D printing
- Processed primary tissue for the development of a regenerative product

Project Experience

Automated Pulling of Manufacturing Data Program

Merck & Co.

Programmer/Data Analyst,

September 2019-September 2020

- Automated the collection of syringe and vial production data for reject calculations using R and Pipeline Pilot
- Queried from OSI Pi and databases using SQL to capture batch data
- Created a program to take a snapshot of historical live data for counts of inspected product
- Set up program to auto-populate the outputted data tables daily to include up to date batches
- Communicated internationally to interpret aspects of inspection data

Skills

Programming Languages: Python, R, MATLAB, Unix (Bash/Awk script), SQL, Pipeline Pilot (Pilotscript), C, Git tools

Software: Microsoft Office (All), Spotfire, Tableau, JMP, Minitab, OSI PI Client Tools, Creo Parametric, Jira

Operating Systems: Mac OS X, Linux, Unix, Windows, Oracle, MySQL

Laboratory: Micropipetting, Gel Electrophoresis, Titration, Centrifugation

Language Skills: Conversational in Spanish, Certified in Japanese Language

Relevant Coursework

Computer Science I, II

Cells and Genetics

Molecular Biology

Computational Bioengineering

Physiology I, II

Statistics in Biomedical Engineering

Database Management Systems

Thermodynamics

Advanced Programming Techniques