

# Michael Algarra

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## Education

### Drexel University

*Bachelor of Science in Biomedical Engineering*

*Concentration in Bioinformatics, Certification in Japanese Language*

### Philadelphia, PA

*Anticipated Graduation: June 2022*

GPA: 3.32

## Skills

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

Software: Microsoft Office (All), Spotfire, JMP, Minitab, OSI PI Client Tools, Autodesk Fusion 360, Creo Parametric

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

Laboratory: Micropipetting, Gel Electrophoresis, Titration, Centrifugation

## Relevant Coursework

Computer Science I, II

Biosimulation

Database Management Systems

Thermodynamics

Computation Lab I,II

Physiology I, II

Chemistry I, II

Molecular Biology

Programming for Biomedical Engineers I, II

Statistics in Biomedical Engineering

Cells and Genetics

Advanced Programming Techniques

## Employment Experience

### Children's Hospital of Philadelphia

Philadelphia, Pennsylvania

*Bioinformatics Research Intern*

September 2020-Present

- Assisted in research in epigenetics associated with CHOP and The University of Pennsylvania
- Conducted analyses of DNA methylation data, including multivariate 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 algorithm to pull live manufacturing data from the floor 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
- Programmed an algorithm 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

## Honors and Awards

STLE Scholarship Award recipient, 2019

Burlington County Times Teen Excellence Award Recipient, 2017

Everly Scholarship, 2017 - 2022

Burlington County Association Scholarship, 2017