Grant Mueller

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Data Scientist

Accomplished, innovative and detail-oriented scientist with in-depth experience, academic background, and a demonstrated ability to effectively manage projects within biopharmaceutical drug product production, process development, and manufacturing spaces. Adept in managing data science pipelines (OSEMN workflows), project life cycle management and documentation, statistical and regression analysis, and machine learning algorithms. Renown for leading teams in the biopharma space across different departments to produce value-add deliverables and find innovative solutions while communicating with management to align with business needs. Proven track record of success in employing expertise with programming languages (Python & R), cloud computing, machine learning pipelines, statistics, and project management to accelerate projects' growth and assist in achieving organizational objectives.

Skills

Data Engineering | Data Analysis | Exploratory Analysis | Visualization | Machine Learning | Cloud Computing | Multitasking | Prioritization | SQL Relational Databases | Research | Team Leadership | Assay Development

Technical Proficiencies

Bioinformatics | Python | CGI | HTML5 | MySQL | Biostatistics | Linux (Ubuntu) | R programming language | Python Packages (Pandas, NumPy, Matplotlib, Scikit-learn) | Apache Spark ML | AWS | Spark | Git & GitHub |

Recent Projects

- Delivered drug-product titer assay control chart used to establish action control limit parameters. Conducted statistical analysis of core dataset while generating analytical data to establish assay critical values. Monitored ongoing data collection for process optimization following standard procedures (SOPs).
- Identified solution to a critical business need in the lab space to deliver value-add of an optimized sample submission process. Successfully deployed custom web-based tracking application. Worked with analytical team members to align app functionality with core asks aimed at alleviating major pain-point.
- Optimized production process residual detection method for high impact process component. Managed the transition to new lab space and integration of software upgrade. Developed analytical method SOP to improve accuracy and assay pass rate, reducing analyst time while boosting productivity.

Experience

GlaxoSmithKline (GSK), Rockville, MD **October 2017 - August 2023**

Senior Scientist

- Worked with stakeholders in cross-functional global teams to find data-driven solutions. Authored technical documents, generated and presented data in a variety of formats including poster presentations.
- Executed late-stage analytical development and qualification of protein quality and process residual methods across five biopharmaceutical product streams to support R&D and manufacturing.
- Developed analytical chemistry methods including high-throughput method for mAb released N-glycan profile analysis, and optimized process residual detection methods while authoring associated SOPs.

NVITAL (Contract via MSC)-NIAID, Gaithersburg, MD **January 2017 - July 2017**
Methods Development Analyst

- Maintained GLP standards and practices under Biosafety Level 2 (BSL2) laboratory conditions, and used aseptic technique during cell line passing, cell counting via hemocytometer, and viral transfection.
- Developed automated cell-based assays with the NIAID Vaccine Immune T-Cell and Antibody Laboratory (NVITAL) collaborating with the Vaccine Research Center (VRC) for the screening of vaccine candidates.
- Executed high-throughput analysis of immunoassays including viral neutralization (HIV) and anti-drug antibody, developed skills with cell-based assays, flow cytometry, adhesion cell culture, and cell banking.

Novavax (Contract), Gaithersburg, MD **May 2016 - November 2016**
Research Associate II

- Performed technical laboratory processes in a GLP environment for the department of Clinical Immunology including training on existing assays, clinical testing, and performing high sample throughput testing.
- Recorded data in specified formats including electronic data capture and maintained a laboratory notebook ensuring that all safety procedures were always observed.
- Analyzed and interpreted clinical and/or experimental data, maintained accurate inventories, ordered supplies, performed routine facility housekeeping, drafted SOPs, wrote reports, and presented data.

MedImmune (contract via Eurofins), Gaithersburg, MD **November 2015 - April 2016**
Research Associate

- Worked in the department of Analytical Biotechnology as the analyst dedicated to A280 UV-VIS analysis, performing in-process sample testing to support characterization and process development.
- Performed A280 analysis on the Agilent 8453 UV-VIS spectrometer, on the Lab Chip DS platform for high throughput sample testing, on the Nanodrop 2000, and trained in the Protein-A Affinity HPLC method.
- Collected data under GMP conditions, handled hazardous materials, utilized the Labware developmental LIMS for sample and data management, and produced documentation following SOP specifications.

DePamphilis Lab–Pennsylvania State University (PSU), State College, PA **July 2012 - May 2013**
Research Assistant

- Performed research independently while maintaining notebooks and conducting literature review.
- Constructed a molecular phylogeny of the genus Dendropemon (Loranthaceae) with the dePamphilis Lab.
- Combined a DNA barcoding protocol with methods for DNA isolation, quantification, amplification via PCR.

Pennsylvania State University (PSU), State College, PA **September 2011 - December 2012**
Teaching Assistant – Introduction To Plant Biology

- Taught two sections of BIOL 127 Introductory Plant Biology leading sessions with high class engagement.
- Communicated concepts in plant biology to a range of students with diverse educational backgrounds.

Education

Master of Science (MS), Biotechnology
Concentration in Bioinformatics
Johns Hopkins University, MD (May 2023)

Bachelor of Science (BS), Biology
Pennsylvania State University, PA