Lauren Foltz

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EDUCATION

Master of Science in Applied Data Science, Syracuse University, Syracuse, NY (Jun 2019) GPA 4.0 Bachelor of Science in Microbiology, North Carolina State University, Raleigh, NC (Dec 1999) GPA 3.9 Associate in Science, Forsyth Technical Community College, Winston-Salem, NC (Dec 1997) GPA 4.0

SKILLS

Computer: Microsoft Excel, PowerPoint, Access, Word, Outlook, SharePoint; MS SQL Server; Various LIMS

Biotech: Molecular Biology, Operations Management, Process Improvement, Quality Assurance

Laboratory: Laboratory Automation (Tecan, Beckman Coulter, Packard)

DNA Analysis using Capillary Electrophoresis, Gel Electrophoresis, and ABI Taqman DNA Extraction (both automated and manual), RNA Extraction, cDNA creation

Cell Culture, DNA Quantification, Restriction Enzyme Digests, PCR, qPCR, Southern Blots

Analytics: R Studio, Python, Jupyter Notebook, IBM Watson Cloud, SAS Viya, Tableau **Data Science:** Data collection, cleaning, exploration, modeling, analysis, and visualization

Data Mining, Text Mining, Machine Learning, Relational Databases, Statistics Random Forest, Support Vector Machines (SVM), Naïve Bayes, Neural Networks

EXPERIENCE

<u>Technical Investigation Writer</u>, Catalent Pharma Solutions, Morrisville, NC (Jan 2020 – Present)

 Responsible for leading investigations, identifying root causes, developing CAPAs, and writing deviation investigation reports.

Graduate Student, Syracuse University, Syracuse, NY (Apr 2018 - Jun 2019) (15 months)

- Collected and organized data, ensuring data quality.
- Identified trends and patterns through data visualization, statistical analysis, and data mining.
- Developed insights and communicated data-driven recommendations.
- Completed Data Science projects, including:
 - Process Improvement: Used the DMAIC method to define a problem, measure, analyze, improve, and control. Measured sigma quality level, utilized a data stratification tree, and used various statistical techniques to analyze energy usage data. Used Linear Regression to predict how much HVAC usage contributes to overall utility bills. Employed a Moving Range control chart to identify months that were not in control.
 - SQL Database: Designed and implemented a relational database for healthcare data using MS SQL Server. Translated business needs into business rules, designed the conceptual model, and converted the Entity-Relationship Diagram (ERD) to a Normalized Logical Model. Created a physical database by writing SQL statements. Utilized SQL data queries to manipulate data and answer business questions.

Supervisor, Molecular Genetics Department, LabCorp, RTP, NC (Apr 2011 – Mar 2018) (7 years)

Managed Laboratory Operations:

- Organized staff coverage for 14 different molecular genetics assays, run on 5 platforms, 7 days a week on 2 shifts.
- Escalated quality events and completed CAPAs as needed. Documented progress of CAPAs in MasterControl.
- Performed root cause analyses (RCA) when Key Performance Indicators (KPIs) exceeded thresholds. Analyzed data to determine the root cause and resolved issues in a timely manner to ensure quality metrics were met.
- Complied with regulations from external agencies (CAP, NYS, CLIA), participated in internal and external audits, and provided detailed responses to audit findings. Complied with HIPAA requirements and ISO standards.

- Launched new assays as needed. This included performing cost analyses, creating standard operating procedures
 (SOPs) and training materials, completing IQ/OQ/PQ documentation, and creating validation plans and summaries.
- Created numerous SOPs, forms, and policies. Performed technical writing for processes such as instrument maintenance, specimen handling, LIMS usage, inventory management, and performing clinical testing.
- Initiated process improvements to save the company money. For example, replaced two single mutation controls with one compound mutation control, saving the company \$30,000 per year.
- Performed quality review of all temperature and instrument logs to ensure compliance with regulations.
- Oversaw reagent QC and validation of instruments, software, and methods, ensuring compliance with regulations.
- Conducted proficiency testing, including 8 external CAP surveys and 2 internal surveys per year.
- Created agendas, took minutes for monthly department, weekly management, weekly troubleshooting meetings.

Managed Laboratory Personnel:

- Monitored performance of 10-15 Techs, Lab Assistants, and Team Leads, and provided guidance and support.
- Scheduled training for direct reports and created all required training documentation.
- Ensured business continuity by continuously scheduling cross training.
- Tracked attendance, scheduled time off, and approved time sheets.
- Evaluated employee performance and initiated corrective action when needed.
- Interviewed candidates for open positions and oriented new hires.

<u>Sr. Tech / Team Lead</u>, Molecular Oncology Department, LabCorp, RTP, North Carolina (Dec 2006 – Apr 2011) (4 years)

- Supervised the work of second shift laboratory staff and provided direction as needed.
- Used innovation to improve patient care by enhancing assay workflow, improving TAT (turn-around-time).
- Extracted DNA and RNA from patient samples and performed genetic testing using PCR.
- Performed preventative maintenance on liquid handling instruments and performed QC on reagents.
- Tracked specimen information in various Laboratory Information Management Systems (LIMS).
- Maintained a safe and orderly work environment, adhering to GLP / GCP standards.

Research Associate / Scientist, Genetic Sample Management, GlaxoSmithKline, RTP, NC (Oct 2001 – Dec 2006) (5 years)

- Planned and executed large scale DNA plate deliverables using liquid handling automation.
- Improved laboratory automation through-put by increasing the number of cryoboxes on the deck.
- Improved functionality of automated liquid handlers by creating stabilizing labware.
- Showed innovation by finding ways to make projects more efficient. For example, converted from ordering pre-capped tubes to uncapped tubes to reduce the risk of a repetitive stress injury as well as processing time.
- Analyzed DNA using gel electrophoresis, profiling, ABI 7900 Tagman, A260, PicoGreen and Hoechst.
- Performed cell culture to create more DNA for subjects with low DNA yield.
- Performed sample and data management activities including sample reception, registration, tracking, discrepancy resolution, distribution and destruction.
- Provided support to clinical study sites and trained new employees.

Tech Trainee / Technologist, Molecular Genetics Department, LabCorp, RTP, NC (Jan 2000 – Oct 2001) (2 years)

- Diagnosed a variety of genetic diseases in a high through-put lab using molecular biology testing techniques.
- Additional tasks involved troubleshooting assays, assay validation, equipment maintenance, keeping detailed records for quality assurance, and training new employees.

TOP 5 STRENGTHS FINDER 2.0 STRENGTHS