

Kelly Boisvert Richards

Data Experience

Data Scientist, MSAT (2019-Present)

- Build multivariate models of RAMAN spectroscopy to support roll-out of PAT technology in the USPO Midscale Asset.
- Support validation of Umetrics Software at global and site levels.
- Model and visualize mammalian manufacturing process data using multiple coding languages and machine learning techniques.
- Deploy machine learning (PLS/OPLS) models to real-time monitoring environment, including development of batch context wrappers and data configurations.
- Provide clear, digestible technical trainings to non-technical end users for data science and data visualization tools (SIMCA-online, Seeq, Power BI).
- Provide more in-depth technical trainings for data science oriented audiences (SIMCA Multivariate Analysis modelling, R coding, statistical analysis, SQL).
- Support global rollouts of new tools including authoring A3 proposal for global pilot.
- Explore applications of Asset Frame and Event Framework for improved data access.
- Perform statistical analysis and data visualization (using R coding) for MSAT, including Cell & Gene Therapy, MSAT Laboratory, and Mammalian assets.
- Mine and analyze structured data from PI system and GDM database.
- Perform process investigations using machine learning models in SIMCA for upstream and downstream processes.
- Authored SOP 'User Guide for SIMCA Online; Multivariate Analysis Software' to provide non-technical users clear instructions on how to navigate the software and interpret multivariate models.

Database Administration Specialist, MSAT (2017-2019)

- Collected cGMP manufacturing data from Electronic Batch Records (eBR) and paper batch records, developing a strong understanding of both upstream and downstream processes, and the associated data of interest.
- Created Webstatistica training for Customer, and supported access management.

Education

Master of Science: Applied Data Science (2022)

Focus: Data Pipelines & Platforms

Syracuse University | School of Information Studies

Master of Science: Biology (2014)

Tufts University | Graduate School of Arts and Sciences

Bachelor of Science: Biology (2011)

University of New Hampshire | College of Life Sciences & Agriculture

Kelly Boisvert Richards

Leadership & Collaboration

Data Culture Workstream | Global Data Governance Board (Lonza, 2022)

‘Women Inspiring Leadership’ (WIL) ERG (Lonza, 2021-2022)

Communications Lead (2022)

Professional Development Lead (2021)

MSAT Learning & Development Team (Lonza, 2020)

Data Analytics Lead

NH New Leaders Council (2018-2019)

Board of Directors

Communication

Internal Portsmouth Presentations and Trainings

- An Introduction to SIMCA-online Multivariate Analysis Software
- A Guide to Better Data Visualization
- Introduction to Seeq Software
- Crash Course in R Coding and Statistics
- Introduction to Power BI

Internal Global Trainings

- Data Science Community Call | “SIMCA and SIMCA-online Models and Applications”
- Data Science Community Call | “A Post P-Value Era”

Umetrics Global User Meeting (September 2022)

- “How to Get Your User to Use What You Make”

University of New Hampshire Guest Lecturer (September 2022)

- “Data Visualization & Data Ethics”
- “Data Science in the Field of Biotech”

Program & Project Management Experience

Animal Rescue League of New Hampshire (2014-2017)

Certified Volunteer Program Manager, Consultant

- Managed a 350+ person volunteer program to support all business areas.

Other

Lean White Belt Certified by Lonza Training Department (December 2021)