Pawel Wiezel

Data Analyst | Materials Scientist

Personal details

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Swiss Residence Permit: C

linkedin.com/in/pawelwiezel

datacamp.
com/portfolio/DataPawel

github.com/DataPawel/portfolio

Skills

Data Analysis (Python, Pandas, NumPy, Matplotlib, Plotly, SQL, MS Power BI, Excel), GitHub, Research and Development (R&D), Experimental Design, Analytical Thinking, Scrum, Agile

Languages

English ●●●●●

German ●●●●●

Polish ●●●●●

About me

- Experienced engineer in the medical device area with R&D background.
- Skilled in data analysis, problem-solving and developing innovative solutions.
- Fosters constructive teamwork dynamics to drive success.

Employment

Development Engineer May 2023 - Jan 2024
Roche Diagnostics International, Rotkreuz (ZG)

- Led an investigation into the properties and interactions of blood components, focusing on their light absorption behavior.
- Developed methods to produce pure key hemoglobin derivatives (MetHb, COHb, HHb, O2Hb). I then recorded their absorption spectra using a spectrophotometer to measure absorptivity.
- Used **Python libraries (pandas, NumPy, matplotlib, Plotly)** for results analysis. This included generating **data visualizations** with Plotly and calculating absorptivity coefficients to quantify light absorption behavior. I compared the results to literature data to identify potential discrepancies.
- Investigated the influence of pH on the MetHb spectrum using **polynomial regression analysis** in **NumPy** to create interactive visualizations.
- Developed reference measurement methods for MetHb, total hemoglobin (tHb), and bilirubin, ensuring accurate data collection. Implemented **statistical analysis** (e.g., coefficient of variation) and visualizations (e.g., box plots) to evaluate the data variability and identify patterns.
- Communicated and **presented key findings** to stakeholders using **interactive data visualizations**.
- Created **technical documentation**.
- **Planned the next steps** in the project after **critical results analysis**.

Product Development Engineer / Scientist Jan 2016 - Jan 2023
Geistlich Pharma AG, Wolhusen (LU)

- Responsible for planning and execution of laboratory experiments to improve and evaluate material properties crucial for successful tissue regeneration, ensuring compliance with GLP (Good Laboratory Practice) regulations.
- Performing comprehensive material analysis using SEM, mercury intrusion porosimetry, and XRD.
- Performing **data analysis** in **Microsoft Excel** to **interpret, visualize** and **extract insights** from the generated data sets. This allowed an understanding of the materials' microstructure, porosity, and crystallography.
- **Presenting key findings** from the results analysis to stakeholders, providing and discussing suggestions for material optimization.
- **Critically analyzed the results** to identify areas for improvement and **planning next steps** for process optimization based on acquired insights.
- Effectively managed the laboratory to ensure efficient experimentation and data collection.

Education

Materials Science and Engineering (M.Sc.Eng.) 2012 - 2014
Warsaw University of Technology, Warsaw (PL)
Specialization: Biomaterials

Dental Technology (B.Sc.) 2009 - 2012
Poznan University of Medical Sciences, Poznan (PL)

Courses

IBM Data Analyst Professional Certificate
in progress

Hobbies

- mindfulness, CrossFit, playing guitar