Jakob Gabriel

Analytics and Data Engineer

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Experience

Jan 2022 – present ⏱ *1 years*

Analytics and Data Engineer at ContiTech Techno-Chemie GmbH - Karben (https://www.continental-industry.com/de/topnavi/company/organization/mobile-fluid-systems)

SUMMARY

- Developing and defining analytics use cases and projects based on problems in production processes of Mobile Fluid Systems in collaboration with stakeholders
- Execution of continuous improvement processes by applying analytical methods in the data-driven problem-solving process against the background of global scaling potentials
- Interpret and document solution approaches from executed use cases and projects for further decision-making and iteration
- Automate analytics and operational business workflows to accelerate result discovery and support stakeholder decision-making processes
- Preparation of budgets for analytics projects, with subsequent securing of these within the framework of defined project objectives
- Preparation and documentation of guidelines in the context of lessons learned from completed projects for continuous further development
- Support of existing process and machine standards against the background of results from analytics projects
- Close cooperation with other business unit functions and the ContiTech central functions

Industry 4.0 Management and Strategy

- Manage and coordinate use cases and projects for data-driven process improvements in manufacturing processes
- Support and implement continuous improvement activities by applying advanced data analytics methods
- Translate manufacturing process specific problems with data into decision workflows
- Interface to local plant and BA functions in order to gather manufacturing engineering requirements and other feedback for data analytics and data science topics
- Translate plant/operations unit's requests into use cases and procedures to ensure the implementation
- Contribute to strategic planning of OT solutions to ensure Advanced Analytics and Data Science Capabilites
- Strategic planning of a Manufacturing Intelligence/ Analytics Solutions for MFS, based on the latest OT solutions and CT and MFS Implementations
- Participate in and/or steer global or local manufacturing engineering related and cross-functional projects with background of advanced analytics approaches
- Coordinate Data Analytics and Data Science Use Cases and Projects globally

Financial Management for Industry 4.0 Implementations

- Prepare the budget and forecast of Data Analytics and Data Science related Use Cases and Projects
- Ensure that the financial goals are met within the Use Cases or Projects

Manufacturing Intelligence / (Advanced) Analytics / Data Science

- Understanding of manufacturing process problems
- Definition of Analysis Goals related to the Use Cases and Projects
- Understand, Clean, Join and Prepare Data for Use Cases and Projects
- Abstract Features from Prepared Data
- Explore Data (Visual Management)
- Model and Execute Analytics Workflows for Rout Causes and Decisions
- Automate the execution of Analytics Workflows
- Interpret, Evaluate the workflows results and their benefits
- Continuous Iteration over Analytics Workflows for better and faster process development cycles

Development and Rollout of MFS wide digitalization standards

- Support the evaluatuation and implementation of software as e.g. PLC, MDA/PDA, MES and hardware as e.g. edge technology according to CT and MFS standards
- Identify key processes with substantial digitalization needs as well as key digitalization concepts and technologies (internal and external to MFS, e.g. preventive and predictive approaches)
- Develop standards regarding methods (e.g. Data Exploration, Advanced Analytics, Data Science), processes and tools / technologies (e.g. predictive methods)
- Organize and implement rollout concepts, communication and compliance of the developed digitalization standards in all MFS PMSs (shared)
- Support local Operations and ME in solution deployment regarding analytics approaches

Training and Coaching

- Provide Use Case and Project related documentation for continuous qualification of other manufacturing engineers
- Share knowledge and status of existing projects within the MFS organization

Standardization

- Development of central manufacturing engineering standards for Shopfloor IT/OT and Manufacturing Intelligence Activities
- Provide feedback and input for further development of standards regarding manufacturing engineering

Languages

German : ★★★
English : ★★☆

Skills

Project Management : ★★☆
MS Project · MS Planner · Gitlab/Github

Quality Management : ★★★
FMEA Moderation · Product Audits · APQP

Statistics : ★★☆
Minitab

Programming Languages : ★★☆
Python

Analytics Tools : ★★☆
KNIME Analytics Platform · JupyterLab

Databases : ★★☆
Postgres · Timescale · InfluxDB

Data Visualization : ★★☆
Grafana · Superset · PowerBI · Streamlit

Oct 2018 – Dec 2021 ⏱ *3 years*

▬ **Quality Engineer at ContiTech MGW GmbH - Waltershausen** (https://www.continental-industry.com/de/topnavi/company/organization/mobile-fluid-systems)

SUMMARY

- Monitoring the processing of corrective measures including transfer of root causes and measures from complaints to the product and process FMEA
- Determination and evaluation of customer requirements, including internal risk analysis within the feasability study and FMEA
- Coordination of customer appointments with Global Quality Planner and internal stakeholders in internal process series as well as in customer acceptance tests
- Introduction of continuous improvement actions with the aim of reducing quality costs
- Creation and maintenance of test instructions, pre-series control plans, series control plans as well as production flow charts

- Carrying out sampling/reclamations
- Coordination of the sampling dates with the global Quality Planner between inter company customer and production
- Creation of initial sample inspection reports for blow molding parts
- Processing of pre-series complaints
- Monitoring the processing of corrective measures
- Transfer of root causes and measures from complaints to the FMEA
- Inspection planning - development of gage concepts for the inspection of Blow molding parts in the different production steps
- Collaboration in the definition of part-related gauge layouts
- Creation and maintenance of test instructions
- Creation of the pre-series control plan, the series control plan as well as production flow chart
- Determination and evaluation of quality-relevant customer requirements within the feasability Study and process FMEA
- Checking the drawings for compliance with internal specifications as well as quality-relevant topics
- Documentation of deviations or requirements during the manufacturability process
- Coordination and moderation of the FMEA meetings
- Participation in FMEA meetings
- Carrying out risk analysis
- Participation in internal process series as well as in customer acceptance tests
- Coordination/scheduling of customer appointments with global Quality Planner and internal Stakeholders
- Effectiveness check of the Poka Yoke measures
- Checking of product and process-related documents for correctness
- Checking of product and process-related documents for correctness and completeness - Initiation and supervision of process capability studies
- Enforcement of the principle of autonomous monitoring at every production site.
- Specification, instruction and monitoring of compliance with workplace and inspection documentation.
- Introduction of continuous improvement actions with the aim of reducing quality costs
- Clear identification, labelling and tracing of products as well as control according to "FIFO"
- Ensuring the process capability of the product-relevant machines and systems
- AS/WS/UWS within the framework of the activities

Oct 2015 – Sep 2018 ⏱ *3 years*

▬ **Working Student at ContiTech MGW GmbH - Waltershausen** (https://www.continental-industry.com/de/topnavi/company/organization/mobile-fluid-systems)

- Analysis of problems and development of solutions in the field of product and process industrialization
- Documentation of the analysis within a project or seminar paper associated with the semester

Aug 2015 – Sep 2015 ⏱ *1 month(s)*

▬ **Trainee at ContiTech MGW GmbH - Waltershausen** (https://www.continental-industry.com/de/topnavi/company/organization/mobile-fluid-systems)

Education 🏛

Apr 2019 – *present* ⏱ *4 years*

Master of Engineering in Applied Polymer Engineering from University of Applied Sciences Schmalkalden (https://www.hsm-fernstudium.de/masterstudiengaenge/angewandte-kunststofftechnik-meng) **with GPA of N/A**

Oct 2015 – Sep 2018 ⏱ *3 years*

Bachelor of Engineering in Polymer Engineering from Duale Hochschule Gera Eisenach (https://www.dhge.de/DHGE/Studieninteressierte/Studieng-nge/Detail~Technik~Kunststofftechnik-Bachelor-of-Engineering~-.html) **with GPA of 1.6**

Certificates / Training 📓

Oct 2021 – Oct 2021

Advanced Analytics Methodologies by AdvancedAnalytics.Academy GmbH (https://advancedanalytics.academy/trainings/fundamentals/advanced-analytics-methodologies)

Sep 2019 – Sep 2019

Product Auditor VDA 6.5 by TÜV Hessen (https://www.tuev-club.de/656/tuev-know-how-club-seminare/)