

Profil Thierry Monthé

Personal Data



Name

Thierry Monthé

Birthdate

08.03.1977

Function

Expert Data Scientist - freelancer

Training

M.Sc. of Data Science (TU Dortmund)

B.Sc. Applied Mathematic (University of Douala)

Consulting Themes

- Advanced Statistics
- Data Analytics
- Text Analytics
- Machine Learning
- Fraud Detection
- Data Integration / ETL, ELT Processes (SAS DI)
- Training and Support
- Strategic Consulting
- SAS Programming (BASE, MACRO, EG, DI, FI, ...)
- R Programming / R Shiny / R Markdown
- Python Programming
- ETL Development (SAS DI)
- Predictive Analytics (Data Mining)
- Data Quality Management
- Design Thinking / Visual Thinking
- Digital Business Models

Languages

German (1)

English (1)

French (1)

Nufi (1)

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Industry Experience

Banking / Finance
Insurance/Reinsurance
Mechanical Engineering
Medicine
Fintech
Telecommunication
Aircraft (Courseware Software)

SAS/R/Python/Analytics

R(1), R Shiny(1), R Markdown(1)
SAS Base / SAS Enterprise Guide (1)
SAS DI Studio (2)
SAS Enterprise Miner (2)
SAS Visual Analytics (3)
Python (1)
Tableau (3)
Rapid Miner (3)
Hadoop (2) / Spark (2) / Hive (2)

Logistics Regression (1)
Ensemble Methods (1)
Association Rules (1)
Decision Trees (1)
Support vector Machines (1)
GBM (1) ...

Miscellaneous

DB2-DBMS (2) / MySQL-DBMS (2) / ORACLE (3)
DB2 SQL (2) / ORACLE SQL (3) / Confluence (1) / JIRA (1) /
Git (1) / MATLAB (3) / AWS (2) / MS Azure (3) / Elasticsearch (2)

(1=Expert, 2=Senior, 3= Junior)

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Projects

06/2020- 06/2021

Bundesdruckerei GmbH

Rolle: Lead Data Scientist/DevOps

Topic: Crisis Early Detection

Details/Goal: Development and Management of analytics solutions around early crisis detection

Aufgaben:

- Further development of a highly secure cloud storage solution in the context of R-Shiny
- Consulting and support for DevOps product owners, development team, product management
- Analysis, specification, conception and, if necessary, implementation of developments and concepts in the context of Hana and data feeds
- Implementation of R-Shiny Web Applications (shiny, testthat, shinyloadtest, shinycannon, profvis)
- Coordination with all stakeholders involved (development teams, business units, department heads) in the agile DevOps development team.
- Coaching and Training of employees in the context of R-Shiny, R-Data Pipeline and the associated tech stack (Docker, R, Python)
- Integration and creation of task packages that can be handed over to development units.
- Planning, implementation, quality control, reporting, test
- Organization and implementation of the documentation structure (Confluence)
- Documentation (Confluence)
- Implementation of a full text-search engine using R, R Shiny and Elasticsearch
- Implementation of a Topic Model for the identification of categories from a corpus of around 10.000 full texts (LSA, LSM using R/Python)

(R Studio Server, R Shiny, R Shiny Proxy, RStudio Team, R Unit Framework, Python, Anaconda, MinIO, S3, SAP HANA, Confluence, Jira, Python, WinSCP, Putty, wireguard, GoogleAPI, Elasticsearch, Kibana, Git, GitLab, Linux, CRON-jobs)

Profil Thierry Monthé

01/2021 - 03/2021

Devk Rückversicherungs- und Beteiligungs-AG

Rolle: Data Scientist

Topic: Exposure Manager Solution for Underwriter (Europe)

Details/Goal: Development of an Exposure Manager Solution for the Visualization of Risk Exposure on an interactive map

Aufgaben:

- Backlog development and agreement with business departments
- Definition of a project architecture and a workflow for the users of the Exposure Manager
- Set up of the development environment (R) and installation of required packages (sf, leaflet...)
- Development of R-Scripts for data preparation, kpi calculations (Data Pipeline) and map creation for visualization
- Coaching and Training of employees for the utilization of the Exposure Manager Solution
- Integration of the created Solution into an AWS-Cloud Environment
- Documentation

(R Shiny, R Studio, Anaconda, html, CSS, AWS cloud)

Profil Thierry Monthé

06/2019 - 08/2020

Boeing Services Deutschland GmbH (e-Learning)

Role: Data Scientist

Topic: Courseware Analytics

Details/Goal: Development of Analytic Models to support and improve Learning and User Experience

Tasks:

- Organisation and Implementation Ideation Phase
- Creation of a Project Management Plan (Scope, Timelines, Resources, ...)
- Definition Analytics Questions
- Identification of required Datapoints
- Definition/Implementation eines Analytics-Framework
- Implementation of the Data Pipeline (Extraction data from the production System)
- Data Management und Data Preparation (Data Pipeline)
- Segmentation User Data / Learning and Assignment Data/
- Development of POC-Dashboard mit R Shiny and Deployment in Customer Environment (AWS)
- Conception, Implementation, and deployment of the ETL Pipeline in Customer Environment (AWS)
- Development of required Analytics Algorithms.
- Organisation und Implementation of the Document Structure (Confluence)
- Planning Follow-Up Meeting

(R Studio, R Shiny, CSS, HTML, Python, Anaconda, MariaDB, CouchDB, Confluence, Python, WinSCP, Putty, AWS Cloud, Git, Github)

Profil Thierry Monthé

04/2019 - 12/2021

Unity Media GmbH (Telecom)

Role: Data Scientist

Topic: Data Governance (GDPR)

Details/Goal: Creation and Implementation of Data Governance Concepts (SAS Environment)

Aufgaben:

- Creation / Implementation of an Authorization/Authentication Concept (roles and rights)
- Development of SAS Macros for automated loading AD-Information into the SAS Management Console
- Creation and Implementation of a Deletion Concept
- Development of SAS Macros for automated deletion Tasks
- Implementation of Review Process for the Role and Rights Concept
- Development and Implementation of a Capacity Management Concept
- Marketing Campaign Selection (SAS)
- Descriptive Analysis to support Marketing Activities.
- Technical and Content Development of Campaign Selection Process)
- Organisation und Implementation of the Documentation Structure (Confluence)
- Coordination of involved Stakeholders (Meetings-Coordination, Follow Up)
- Planning and Task-Definition (Creation and Review JIRA-Tickets)

(DSGVO, AD, LDAP, IAM/PAM, MySQL, MariaDB, AIX, SAS Office Analytics, SAS Studio, SAS Management Console, Python, WinSCP, Putty, R, sparklyr, SparkR)

07/2019 -

Keynote Speaker Data Sciences Talk

- /State Library Dortmund /06.07.2019) -

Topic: Digital Transformation- Opportunities and Challenges for SMEs in the African Market

Profil Thierry Monthé

01/2018 - 01/2019

Flex Financial Solutions AG (Finance)

Role: Expert Data Scientist

Topic: Fraud Detection System

Details/Goal: Development of a statistical Risk Tool for online Fraud Detection / Fraud Management

Tasks:

- Business Concept
- Test Concept
- Implementation of the entire Data Processing Flow
- Scoring/Modelization
- Dashboard-Reporting (Shiny, R Markdown)
- System Monitoring
- Stakeholder-Management
- Software Development using R

(MySQL, R, R-Studio, R Studio Server, AWS, R Shiny, R Shiny Server, R Markdown, Visual Studio, Python, API, WinSCP, Putty, GitHub, Linux Server, CRON-Jobs, Git, Github)

10/2018

Training Data Sciences for SME (Kenya)

Rolle: Expert Data Scientist

Topic: Training Basic of Data Science for Small and Medium Enterprises

Details/Goal:

Cooperation project with CIM / GIZ (Germany) - 10 days training for Small and Medium-sized Enterprises (SMEs) in 3 locations Kenya (Nairobi / Nakuru / Eldoret) - Introduction to Applied Statistics - Design Thinking Workshop - Introduction to R - Introduction to Data Science (Germany) Processes / applications ...)

Profil Thierry Monthé

09/2018

Keynote Speaker Digital Transformation

- Volksbank Investment Forum/Oelde/13.09.2018) -

Topic: Digital transformation in industry: success factors for a journey into the unknown

01/2018 - 06/2018

GEA AG (Mechanical Engineering)

Role: Data Scientist

Topic: Predictive Maintenance (Compressors / Separators) - Digital Transformation in the mechanical industry

Details/Goal: Development of statistical models to predict machine status/behaviour based on sensor data.

Tasks:

- Customer interviews to identify pain points.
- Brainstorm phase with Process Experts to analyse Solutions Space (635-Methodology)
- Agile-Working Modus (SCRUM)
- Story Definition, Cost estimation
- Backlog-Definition
- Database Modell Definition
- Data Quality Assessment and Data Cleansing
- Model Development
- Model Deployment und Model Monitoring

(MySQL, SAS, R, R-Studio, SparkR, sparklyr, Matlab, Azure Cloud, Visual Studio, Python, MS-Office and other customer specific software/tools)

Profil Thierry Monthé

04/2017 - 12/2017

GEA AG (Mechanical Engineering)

Role: Data Scientist

Topic: Start-Up Project (Process Business Modelling) - Digital Transformation in Industry (Brewery)

Details:

Conversion of data into knowhow. Creating an online Dashboard to gain comprehensive visibility into the entire brewing process - Build the complete data flow - from the customer environment into the cloud and back with processed information.

Goal:

Definition and implementation of an IT/Data infrastructure, which enables sensor data collection (PLC) and data storage in a central database with the aim of extracting business-relevant information and making it available for the brewing masters in the form of a Dashboard (Transparency and Understanding of the brewing process).

Tasks:

- Recording customer requests / identifying pain points
- Brainstorm phase with Process Experts to analyse Solutions Space (635-Methodology)
- Agile-Working Modus (SCRUM)
- Contribution to story definitions, cost estimates
- Contribution to backlog definition
- Contribution to the creation of a Network Security Concept
- Sensor Data Collection from the PLC-Units (EchoCollect)
- Data quality assessment and data cleansing (using expert knowledge and statistical methods, such as outlier's detection)
- Development of R codes for data cleansing, KPI calculations and ad hoc analysis
- Integration of the R codes in the defined IT environment (Docker Container, Python, ...)

(Echo Collect, OPC UA, Visual Studio Code, Python, R, SAS, R

Analytics Flow MySQL, MS Office, AT&T Global Client, MediBang Paint Pro, Winscp, Putty, GitHub, Rapid Miner)

Profil Thierry Monthé

01/2015 - 03/2017

GEA AG (Mechanical Engineering)

Role: Data Scientist

Topic: Data Fusion Project (3 Phases)

Details:

Disease Prevention / Prediction - Automatic Milking System -
Multivariate Approach Outlier Detection in Time Series

Goal:

Development of a statistical model for the online detection / diagnosis of animal diseases (mastitis) in the context of automatic milking (AMS)

Tasks:

- Customer interviews to identify pain points.
- Extraction and clean-up of relevant data from the farm management system
- Organization and monitoring of the data collection process.
- Definition of a data model for data storage
- Co-operation with farmers for reporting of disease cases ("positive cases")
- Development of R codes for data cleansing, modeling, testing, monitoring and ad-hoc analysis.
- Development and testing (development tests) of the statistical model
- Organization and monitoring of the test phase with selected test plants.

(Echo Collect, OPC UA, Visual Studio, SAS, Python, R, R Studio, R Analytics Flow, Matlab, MySQL, MS Office, AT&T Global Client, Media Bang Paint Pro, Winscp, Putty, GitHub, Rapid Miner)

Profil Thierry Monthé

10/2013 - 12/2014

Central State Bank Saarland (Finance)

Role: IT-Organisator

Topic:

Coordination and support Data provision to internal customers (Risk management, Controlling, ...)

Goal:

Development/Monitoring of a SAS data warehouse and improvement of internal monthly data provision → 0% Downtime

Tasks:

- Implementation of a change management system for collecting and solving internal customer requests.
- Data Management focusing on the Monitoring and Development of a SAS-Datwarehouse
- Reporting according to requirements of various departments (Risk, Controlling, Finance...)
- Data Provisioning
- Data Quality Assessment
- Mapping of new requests to database structure and data elements
- Algorithms Development/Continuous Development
- Test and Documentation / Monitoring of Approval Process

SAS DI Studio, SAS Financial Management, SAS Management Console, SAS Makro, SAS BASE, SAS EG, Lotus Notes, MS Office)

01/2013 - 09/2013

BNP Paribas AG (Finance) / Vonessen Bank

Role: SAS Business Analyst

Topic: Prolongation of real estate loans. Modelling the minimum interest rate for loan extensions.

Details:

Initial situation: manual loan extension, interest rate was estimated manually by creditor and offer made to customers.

Challenges: Profitability with the new interest rate was not guaranteed.

Goal:

Application of statistical-mathematical methods to determine the minimum interest rate for the prolongation. The calculated interest rate should be competitive but still profitable for the bank.

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Tasks:

- Analysis and specification of requirements (draft of technical concept)
- Contribution to the definition of the IT-requirement and the target IT-infrastructure
- Contribution to creation of the IT-concept
- Leadership of Business Analyst Team (2 persons)
- Selection of statistical-mathematical methods
- Definition and selection of criteria relevant for modelling (variable selection)
- Implementation of Analytics Codes (Newton and Lagrange Approximation)
- Coordination and execution of technical tests
- Backtesting und Monitoring Review after Implementation and Deployment
- Project Documentation
- Results Presentation (Management)

(MS Office, SAS Enterprise Miner 13.2, SAS EG 6.1, SAS BASE (Macros)/ R, Tinn-R/ DB2-DWH, Oracle DWH2 / AS 400)

06/2012 - 01/2013

BNP Paribas AG (Finance) / Vonessen Bank

Role: SAS Business Analyst

Topic: Score Development and Score Monitoring Automation

Details:

Development/Continuous Development of existing scoring models. Implementation of an automated Score Monitoring System

Goal:

Update of existing scoring models (application score, PD, LGD) and development of an automated score monitoring system that can be used for all branches of the BNP Group - fully automated jobs - Job scheduling.

Tasks:

- Analysis and specification of the requirements (Contribution to drafting of the technical concept)
- Contribution to the creation of an IT-concept
- Development of Data Marts for modelling purposes (Training/Test/Validation/Production) - Definition of default criterion and cut-off
- Selection of statistical methods

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- Development of Analytics Codes (SAS, Logistic Regression)
- Selection for scoring of the most relevant factors.
- Development and Implementation (Job Automation)
- Documentation und Monitoring
- Quarterly Reporting
- Ad-Hoc Analyses

(MS Office, SAS EG 6.1, SAS BASE (Macros)/ R, Tinn-R/ DB2-DWH / DB2-SQL / AS 400)

01/2012 - 08/2012

BNP Paribas AG (Finance) / Vonessen Bank

Rolle: SAS Business Analyst

Topic: Likelihood of Disbursement (LOD) - Risk Management / Sales

Details:

Portfolio Segmentation according to Risk and Sales point of views

Goal:

Modelling the likelihood of disbursement and segmentation of the portfolio from the point of view of risk management on the one hand and from the perspective of the sales department on the other.

Task:

- Analysis and specification of the requirements (Contribution to drafting of the technical concept) and segment definition.
- Mitarbeit an der Definition der DV-Anforderungen und der Ziel-IT-Infrastruktur
- Contribution to the definition of required IT-infrastructure and IT-infrastructure.
- Development and implementation (portfolio analysis, potential analysis, forecast analysis)
- Selection relevant statistical methods
- Development of Analytics Codes
- Backtesting und Monitoring after Implementation and Deployment

(MS Office, SAS EG, SAS BASE (Macros)/ R, Tinn-R/ DB2-DWH (DB2-SQL / AS 400)

Profil Thierry Monthé

03/2011 - 12/2011

BNP Paribas AG (Finance) / Vonessen Bank

Role: SAS Business Analyst

Topic: Risk Classification Real estate loans (statistical modeling)

Details:

Unsupervised and Supervised Learning (Real Estate Portfolio)

Goal:

Development of a monitoring system of the risk structure of existing portfolio of real estate loans with the aim of making adjustments if required (Pricing, Collection,)

Tasks:

- Analysis and specification of the requirements (Contribution to drafting of the technical concept)
- Definition of risk criteria in agreement with the process experts
- Contribution to creation of IT-concept
- Model Development (Variable Selection, Descriptive Analysis, ANOVA, Gini, ...)
- Selection relevant statistical methods
- Development Analytics Codes for Classification
- Backtesting, Documentation and Monitoring
- Creation of an AS-400 Table containing Risk-Classes.
- Monthly Reporting

(MS Office, SAS EG 6.1, SAS BASE (Macros)/ R, Tinn-R/ DB2-DWH (DB2-SQL / AS 400)

Profil Thierry Monthé

01/2011 - 03/2011

BNP Paribas AG (Finance) / Vonessen Bank

Role: SAS Business Analyst

Topic: Liquidity Management /Modelling Interest Rate Change

Details:

Monitoring of the impact of EURIBOR-Interest rate changes on liabilities- EURIBOR rate at various horizons (,3,5 years)

Goal:

Development a statistical model to monitor the change in the central EURIBOR interest rate and resulting impact on Bank's liquidity management and pricing policies.

Tasks:

- Analysis and specification of the requirements (Contribution to drafting of the technical concept) and segment definition.
- Contribution to the creation of the IT-concept
- Model Development
- Selection relevant statistical methods
- Development of Analytics Codes
- Backtesting, Documentation and Monitoring
- Reporting

(MS Office, SAS EG 4.2, SAS BASE (Macros)/ R, Tinn-R/ DB2-DWH (DB2-SQL / AS 400)

Profil Thierry Monthé

02/2010 - 12/2011

BNP Paribas AG / Vonessen Bank (Finance)

Rolle: SAS Business Analyst

Topic: Bank-Reporting

Details/Goal: Development of an automated bank reporting system including dashboards (collections/operation) for monitoring specific functionalities of the banking process.

Tasks:

- Definition relevant Key Performance Indicators (KPI)
- Creation required Data Marts for KPI Calculations
- Implementation of SAS-Jobs for KPI-Calculations
- Monthly Reporting
- Business Analyse monthly results.
- Stakeholder Management
- Performance Optimization
- Ad-Hoc Analyses

(MS Office, SAS EG 4.2, SAS BASE (Macros)/ R, Tinn-R/ DB2-DWH (DB2-SQL / AS 400)