# **Nachiket Kakirde**

# **Data Science Manager**

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Website: <a href="http://nachi.ch">http://nachi.ch</a>
Birthdate: 19<sup>th</sup> March 1985

**Permit:** Permanent Residence Permit(C)

**Nationality:** India

Languages: English, German(B2) and Swiss German(B2), Marathi (Mother tongue)

Expertise: Machine Learning | Predictive and Timeseries Modelling | Financial Forecasting | Risk

Simulations | NLP Modelling | Analytics Product Management

### **Profile**

Machine Learning professional and Certified Product Manager with experience of 5+ years in FMCG and 2+ Financial Services and Retail Banking. Academic background in computer sciences, management and economics. Persistent of on delivering business value through a blend of outstanding User Experience, Machine Learning and cutting-edge IT technology. Leveraging the benefits of Agile and Scrum frameworks in the advanced analytics lifecycle.

### **Key Current Responsibilities**

- **Envision, develop and deploy** machine learning and advanced analytics-based tools and solutions.
- **Measure business value** from ad-hoc data analysis, data acquisition, modelling to visualization during typical "Idea-to-Product" cycle
- **Plan the analytics roadmap** and drive forward use-case pipeline.
- **Engaging and establishing stakeholder alignment** within cross functional teams from Finance, Risk, IT, HQ and local markets to realize and scale analytics use-cases from the pipeline.
- **Deliver effective presentations** of analysis findings and recommendations to the senior management and executive team on very regular basis.
- **Ownership, Mentorship and Training** Owner and accountable for analytics platform and projects deployed on the platform. Acted as mentor and delivered trainings for aspiring data scientist and analytics experts and managers within the company and local organisations.

# **Professional Experience and Few Recent Achievements**

# **Data Science Manager**

Jan 2015 - Present

Carlsberg Supply Company AG, Ziegelbrüke, Switzerland

Global Supply Chain headquarter manages the world-wide brewery network in Carlsberg Group, global procurement, brewing technology and logistics services and ensures end-to-end planning through the entire supply chain.

### Implemented Machine Learning based demand forecasting - Pilot markets France and Russia:

- Improved Forecast Accuracy between 5%-18% on different forecast granularities across product portfolio
- Reduced obsoletes stocks by 50% and sporadic errors by 75%.
- Owned technical product for machine learning model performance and ml pipelines.

### KPI reporting automation using machine learning approach with NLP and NLG:

- Implemented a prototype to generate machine based KPI and business performance reports and texts.
   Techniques used simple gap filling approach and templating with model trained on weekly KPI and performance reports using various techniques like Markov Chain, RNN and LSTM algorithms.
- o Indicated significant efficiency and productivity gains of up to **60%** for analysts in BI and reporting.

#### Developed Quantitate Risk Model to estimate Supply Chain failures - Western and Eastern Europe:

- o Developed a risk model to quantify the risk of supply failure for the top profitable products across the globe.
- o Calculated and assigned a **failure risk** score based on Bow-Tie analysis and constrained optimizations.
- Enabled insights to understand overall risk and reduce and calibre insurance coverage and premium



- Simulations in production and packaging Smart Brewery Pilot market Switzerland:
  - Developed pilot project to optimize a "Golden" sequence with objective to minimize changeover time.
  - o Implemented an **anomaly detection** model to detect failures and anomalies for packaging and filling line.
- Delivered Timeseries forecast and weather scenario Tool Western Europe and Asia:
  - Improved forecast accuracy by 15% and improved forecast adoption by 60% via functionalities like 'single click forecast' in the product and weather scenarios based in 'R'
  - o Facilitated implementation of tool for **17** markets in Western Europe and Asia.

### **Research Assistant**

Sep 2013 - Dec 2014

### Chair of Entrepreneurship ETH, Zürich Switzerland

D-MTEC combines scholarly excellence and a constant engagement with practice to tackle today's most challenging problems. High level research and outreach in management, economics, innovation, systems dynamics, and risk.

- Involved NLP topic modelling-based research Data collection, modelling and visualization
  - Scarped massive data corpus using scrapping techniques and modelling using python and C++
  - Visualized graph models for publication purposes using R
  - Analysed data using clustering techniques to group keywords and topics using python
- Contributed to Business models research with concept formulation and framework
  - o Conducted extensive literature review and assimilation of results
  - Proposed a framework to analyse the findings and formulate hypothesis regarding business models types

### Sr. Systems Analyst

Jul 2011 - Jul 2013

**Cembra Money Bank,** Zürich, Switzerland

Cembra is a leading Swiss provider of financing solutions and services including consumer finance products

- **Credit Risk Scoring** For 2 years worked closely with risk department for Loan originations system.
  - Delivered a flawless credit risk score through loan originations system after risk regulation revision in 2011
- Technical owner and Change Manager for private banking loan origination and credit card servicing systems.
  - Enforced accurate credit score computation and delivery for loan applications based on real time loan requests through local branches.
  - Improved change request through process changes to requirement analysis, planning and delivery
  - o Revised the UAT release with CI/CD implementation and represented the development team in CAB Meetings

# **Systems Analyst/Consultant**

Jan 2009 - Jul 2011

Royal Bank of Scotland, Mumbai/Pune, India

• **Systems Engineer** - Act as a single point of contact between the business users and development team. Lead release planning and change management and represent the team in Change Board Meetings.

### **Education**

MASTER OF ADVANCED STUDIES IN	Master Thesis in Corporate	ETH, Zürich	2015
MANAGEMENT, TECHNOLOGY AND ECONOMICS	Strategy		
MASTER'S IN COMPUTER SCIENCES	Thesis in Algorithm Design	University of Pune	2008
BACHELOR'S IN COMPUTER SCIENCES	Thesis in Machine Learning	University of Pune	2006

# **Certifications**

<b>Certified Product Manager Product Owner</b>	SAFe	2020
<b>Certified Production and Inventory Planning</b>	APICS	2016

# **Key functional and technical expertise**

### **Functional**

### **Planning:**

- Experience in Sprint Planning and execution
- Skill to translate high level requirements into features
- Running daily stand-ups (DSU) for effective and productive delivery using Agile framework

### **Requirements Analysis:**

- Business background enables to capitalize on business value
- Technical background allows to understand complexity of problem
- Hands-on experience in documenting technical specification

### **Implementation and execution:**

- Specialized in large analytic implementations and scale ups.
- Enforced iterative approach towards implementation using versioning and source control
- Experience to navigate high risks events during implementation
- Continuous measure of implementation success

### **Stakeholder Collaboration:**

- Enable positive collaborative spirit think win-win for all stakeholders
- Manage stakeholder **expectations** in full analysis lifecycle
- Understands importance to involve end-users and key stakeholders right time.

# **Technical**ML and Statistical Algorithms:

- Statistical modelling and analysis
- Optimizations
- Decision trees, clustering using scikit-learn
- Gradient Boosting using XGBoost, LightGBM
- Deep learning with RNN, CNN, LSTM models using TensorFlow, pytorch and Keras
- Timeseries modelling using ETS, HW, ARIMA, ARIMAX, GARCH

### **Programming Languages and Tools:**

- Python 3.6 using Jupyter Notebooks, PyCharm
- R 3.3 using RStudio
- Apache Spark 2.4 using HDInsight, Azure Databricks

### **Visualization Tools:**

- Power BI Pro
- Tableau
- D3.js
- Qlick View
- Matplotlib / ggplot / seaborn

### **Database and Storage Technology:**

- SQL using MSSQL and MYSQL
- Hive using Databricks 2.0
- Azure Data Lake Gen 2

### **Azure Cloud Platform:**

- Azure Data Factory Gen 2
- Amazon Web services

# **Hobbies and Activities**

**Outdoors** - Hiking and bouldering, Downhill biking, Swimming

**Indoors** - Playing Harmonica, Guitar and Violin

**Learning** - New technologies and programming languages

**Competing** - Participate in "Data for Good" events and hackathons

**Organizing** - Organize hackathons and Data Science Events, High Intensity Interval Training Sessions