Paresh Nakhe

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Experience

2020– **Applied Scientist**, *Zalando SE*, Berlin.

1. Revamped a legacy classifier to estimate the probability of article return
   - Achieved *40%* improvement on business KPIs
   - Developed a custom XGBoost model with tailored feature preprocessing steps
   - Developed an optimized prototyping process for fast iterative improvements
   - Supported deployment of the prototype in production using AWS SageMaker
   - Pro-active communication with product, technical and commercial stakeholders
2. Engineered data products powering A/B tests to measuring long-term pricing efficiency
   - Developed to measure the long-term efficiency of all pricing products handling over 2.5 billion euros in transactions
   - Enabled identification of inefficient human intervention in discounting leading to substantial savings in profit lost
   - De facto standard for rolling out updates to pricing products
3. Other contributions
   - Developed an article clustering tool to reduce bias (spillover effect) in A/B tests
   - Developed a documentation system for data science experiments within the team
   - Mentored junior colleagues and supported hiring

2018–2020 **Data Scientist**, *Smart Pricer GmbH*, Berlin.

1. Built an end-to-end ML pipeline including:
   - Data cleaning and preprocessing
   - Exploratory data analysis
   - Development of a Bayesian demand forecaster model including backtesting
   - Assisting deployment to production
2. Data Sorytelling: Supported decision making using in-depth data analysis and compelling visualizations

2014–2018 **Researcher**, *Max Planck Institute for Computer Science*, Saarbrücken.
- Conducted research on sequential ML for dynamic pricing problems

2013–2014 **Software Developer**, *Qualcomm India*, Hyderabad.
- Developed Qualcomm-specific modules in the telephony layer of Android.

Tools and Technologies

Languages	Python, SQL
Platform	AWS services including S3, EMR, SageMaker
Python Lib	PySpark, Pandas, scikit-learn, PyMC3, XGBoost, GluonTS
Environments	Databricks, Jupyter

Education

2014–2018 **Doctor of Philosophy**, *Magna Cum Laude*.
Goethe University, Frankfurt am Main (contd. from Saarland University)
Thesis: On Bandit Learning and Pricing in Markets
Main points of study: Machine learning, dynamic pricing in markets, game theory

2011–2013 **Master of Technology in Computer Science**.
Indian Institute of Technology Madras, Chennai, India
Thesis: "Fast Random Walks on Overlay Networks"
Main points of study: Distributed Algorithms
GPA: 9.01/10

2007–2011 **Bachelors in Computer Engineering**.
Pune University, Pune, India
GPA: 3.60/4

Special Interests

- Elegant use of Python/PySpark constructs
- Optimizing Data science workflows

Languages

English	Fluent
German	Good (Level B2)

Publications

Paresh Nakhe. Dynamic pricing in competitive markets. In *Web and Internet Economics*. Springer International Publishing, 2017.

Paresh Nakhe and Rebecca Reiffenhäuser. Trend detection based regret minimization for bandit problems. In *Data Science and Advanced Analytics (DSAA), 2016 IEEE International Conference on*, pages 263–271. IEEE, 2016.

Paresh Nakhe, Peter Robinson, John Augustine, and Tejas Kulkarni. Robust leader election in a fast-changing world. *The Ninth International Workshop on Foundations of Mobile Computing (FOMC)*, 2013.