

Kamaljeet Singh

Senior Data Scientist

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PROFESSIONAL EXPERIENCE

Senior Data Scientist, *HolidayCheck Gmbh* 🔗

August 2021 – Present | Munich

- **Leadership & Strategy:** Represented the data science team in internal forums and **Burda leadership meetings**, influencing AI adoption strategy and aligning initiatives with business priorities.
- **Team Development:** Mentored junior scientists and introduced collaboration initiatives (project hub, feedback culture) that improved team efficiency and innovation.

Business Impact through AI:

- **OfferPromoter:** Delivered a personalized offer recommendation system that achieved a **2.5% uplift in conversions**, directly boosting revenue.
- **Looker-Booker Model:** Designed a classification model enabling **personalized marketing** and **data-informed strategic decisions**.
- **Fraud Detection:** Strengthened fraud prevention by deploying explainable AI (SHAP), streamlining classifiers for faster and more accurate detection
- **Operational Excellence:** Deployed MLflow on internal Kubernetes infrastructure, cutting development time and errors while improving transparency and stability across ML workflows.

Applied Scientist, *Amazon*

October 2020 – April 2021 | Aachen

- **ASR Optimization:** Improved Alexa's German speech recognition accuracy by introducing a second-pass language model rescoring framework, reducing word error rate (WER).
- **Global Scale Impact:** Contributions enhanced the customer voice experience for millions of Alexa users in the DE locale

Data Scientist, *HolidayCheck Gmbh*

September 2018 – September 2020 | Munich

- **Recommender Systems:** Developed a personalized travel recommendation engine that achieved a **50% higher CTR** compared to static baseline recommendations.
- **Insights for Leadership:** Created interactive dashboards and visualizations to communicate machine learning insights, shaping business decision-making.

EDUCATION

Masters of Science in Computer Science, *University of Freiburg* 🔗

2015 – 2018 | Freiburg
GPA: 1.5 / 1.0

BEng in Computer Science, *Panjab University*

2010 – 2014 | India
GPA: 8.2 / 10.0

SKILLS

AI & ML

Machine Learning, Deep Learning, NLP, Recommender Systems, Computer Vision

Data Platforms

MLflow, Kubernetes, Docker, AWS (SageMaker, EC2, Lambda), GCP (Vertex AI)

Visualization & Insights:

Plotly, Matplotlib, Grafana

Programming

Python, SQL, Javascript

- **Computer Vision:** Implemented an automated image quality assessment model (Neural Image Assessment) to detect aesthetic pictures, cutting manual selection effort by **90%**.
- **Conversational AI:** Built a chatbot prototype using a multilingual sentence encoder as a feature extractor to automate online customer queries.

Research Assistant, *University of Freiburg*

December 2015 – August 2018 | Freiburg

- **Data Analysis:** Analyzed real-time response (RTR) data from users captured via the *Debat-o-Meter* tool to extract meaningful insights.
- **Machine Learning:** Applied ML techniques to debate videos, integrating RTR data to identify and capture relevant behavioral patterns.
- **System Development:** Built secure annotation modules and user interfaces for the **Debat-o-Meter**, improving research usability.

Research Assistant, *Uniklinikum Freiburg*

June 2016 – August 2018 | Freiburg

- **EdTech Innovation:** Developed and maintained a virtual microscopy learning tool, including a quiz module, improving medical student learning outcomes.

System Engineer, *Infosys Ltd.*

June 2014 – September 2015 | India

- **Banking Transformation:** Enhanced **Finacle**, Infosys's flagship banking solution, through new feature development and application support, improving client banking operations.

Internship (JAVA), *Infosys Ltd.*

February 2014 – June 2014 | India

INTERESTS

Leadership in AI Strategy
| Data-Driven Business
Transformation |
Evidence-Based Decision
Making

PUBLICATIONS

**ECO: Efficient
Convolutional
Network for Online
Video Understanding,**
ECCV

<https://arxiv.org/abs/1804.09066> 

CERTIFICATES

- Deep Reinforcement Learning
Nanodegree 
- Computer Vision
Nanodegree 
- Natural Language Processing
Nanodegree 
- Tensorflow Developer 
- Machine Learning on Google Cloud 
- Deep Learning Specialization 