

Kamaljeet Singh

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📍 Berlin, Germany (Remote)

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PROFESSIONAL EXPERIENCE

Senior Data Scientist | ML Engineering & Personalisation, *HolidayCheck GmbH*

August 2021 – Present | Munich

- Lead end-to-end delivery of personalization and decision systems, partnering with product, engineering, and domain stakeholders from problem discovery through production rollout.
- Built recommendation, ranking, booking-propensity, and uplift models for hotel and offer recommendations, delivering 2.5-5% conversion uplift.
- Designed training data and evaluation strategies for ranking, propensity, and uplift models, with careful label construction and robust offline validation.
- Built user-intelligence APIs combining identity, behavior, booking intent, affinities, journey stage, and price sensitivity.
- Owned training pipelines, FastAPI inference services, Airflow orchestration, observability, production support, and post-launch iteration.
- Standardized experiment tracking, model registry, and artifact workflows by deploying MLflow on Kubernetes.
- Built transformer embedding and vector-search pipelines for images, reviews, and travel Q&A.
- Shaped ML roadmaps with product and leadership, communicated technical tradeoffs, and mentored engineers and data scientists.

Applied Scientist, *Amazon*

October 2020 – April 2021 | Aachen

- Developed second-pass language-model rescoring for German Alexa speech recognition, reducing word error rate in production.
- Evaluated and shipped model improvements for a voice experience used by millions of customers.

Data Scientist, *HolidayCheck GmbH*

September 2018 – September 2020 | Munich

- Built a personalized travel recommender that achieved 50% higher CTR than static recommendations.
- Productionized neural image assessment, reducing manual image-selection effort by 90%.
- Developed a multilingual conversational system using sentence embeddings.

EDUCATION

MSc 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

Machine Learning:

Recommendation, ranking, uplift modelling, classification, embeddings, vector search, computer vision, NLP, LLM applications

ML Engineering:

Python, SQL, FastAPI, asynchronous services, API design, testing

MLOps & Infrastructure:

MLflow, Airflow, Kubernetes, Docker, Prometheus, Grafana, AWS, SageMaker, GCP, Vertex AI

Delivery & Leadership:

Stakeholder discovery, requirements translation, solution design, product integration, experiment design, technical communication, mentoring

- Built interactive tools that helped product stakeholders understand model behavior and identify opportunities.

Research Assistant,

Uniklinikum Freiburg | University of Freiburg

December 2015 – August 2018 | Freiburg

- Applied machine learning to debate videos and real-time audience-response data to identify behavioral patterns.
- Improved and maintained a virtual-microscopy learning platform, including its quiz module, and built secure annotation tools for research workflows.

System Engineer, Infosys Ltd.

June 2014 – September 2015 | India

- Developed and supported features for Finacle enterprise banking software.

INDEPENDENT PROJECTS

- **LeadBloom** [🔗](#) : Building an evidence-first agentic lead-intelligence platform that discovers and ranks buying signals across 11 sources. Designed the agent workflow, structured-output validation, background jobs, FastAPI backend, and multi-tenant Next.js/Supabase application.
- **VoiceDoc** [🔗](#) : Built and published an on-device transcription and document-generation iOS application supporting 100+ languages.
- **NimbleDay** [🔗](#) : Built an energy-based planning iOS application with goals, focus sessions, habits, and iCloud synchronization.
- **Sehaj Breath** [🔗](#) : Built and published a breathwork, meditation, and emotion-journaling iOS application.

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 [🔗](#)