

Aanand Vardhan

Customer Journey Expert | AI Architect

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Professional Summary

- Senior Recommender Expert with 5+ years designing enterprise-scale personalization and analytics platforms for automotive and luxury e-commerce clients.
- Delivered €750M incremental revenue and 7× conversion uplift by integrating privacy-compliant recommendation engines serving 6 million users across 14 markets.
- Led cross-functional teams of up to 12, spearheading LLM/RAG migration that boosted predictive accuracy to 55% while shrinking model-training cycles by 40%.
- Champion of data governance and quality; implemented metadata-driven pipelines and GDPR-aligned frameworks. DAMA CDMP Practitioner certification in progress (completion Q4 2025).
- Adept at advising C-level stakeholders and crafting data-driven roadmaps that secured €2M+ contract renewals and expansions.
- Trusted mentor and thought leader—organised company-wide AI knowledge exchanges and coached emerging ML engineers to production-readiness.

Experience

Mercedes-Benz AG, Stuttgart.....

Senior ML Engineer / AI Architect

Jul 2023 - Present

Architected the global personalization engine reaching *6M users monthly across 14 markets*, boosting revenue by 1.1% (750M EURO) through strategic data platform transformation. Led technical strategy for GDPR-compliant multi-channel campaigns and migrated from legacy deep learning to hybrid LLM-RAG, cutting *training time by 40%* and lifting prediction accuracy from *30% to 55%*. Transformed organizational data capabilities through automated data segmentation, campaign orchestration, and user engagement workflows. Managed integration of personalization into mobile and web platforms, collaborated with business analytics, product, and ops leads, and established enterprise data governance frameworks. Currently shaping the agentic AI framework as the company-wide recommendation backbone with focus on data quality, metadata management, and compliance.

Smart Digital GmbH, Gerlingen.....

Technical Consultant / Product Developer

Jan 2023 - Jul 2023

Led ML engineering consulting for VW, Infiniti, BMW, Porsche, and Christie's, delivering a *72% simulated prediction success rate* and *CTR boost of 40%* for Christie's—their first ML-driven personalization system. Engineered SmaSi (Smart Signals) for automotive clients, lifting recommendation accuracy by *8%* via cross-dataset training, and automated ML pipelines to accelerate deployment and enhance reliability. Introduced GAN-based data augmentation for cold start risk reduction, led multi-client integration project rollouts, and provided strategic guidance on data governance and enterprise data management practices.

Master Thesis: Reinforcement Learning for Web User Personalization

Jul 2022 - Dec 2022

Designed a DQN-based personalization engine with GAN-generated data for missing user profiles, improving prediction accuracy by *4%–16%* across scenarios while addressing data quality and governance challenges. Automated pilot project setup, accelerating validation for SmaSi deployments and establishing data management best practices. Demonstrated privacy-preserving data expansion and advanced reinforcement learning for real-world product transfer with comprehensive data lifecycle management.

Working Student

Aug 2020 - Jun 2022

Implemented watchdog monitoring to cut analytics turnaround from *one week to days* through enhanced data pipeline management. Enabled direct CRM integration, reducing feature deployment from *two-week cycles to minutes* via automated data workflows. Drove process automation for campaign optimization, established data quality monitoring systems, and worked closely with business teams to implement feature requests in agile sprints while maintaining data governance standards.

GreenTeam eV (Formula Student), Stuttgart.....

Software Engineer

Sep 2019 - Aug 2020

Built DL-based SLAM perception and deployed FPGA-driven path planning for autonomous racecars. Supported robust system design, live telemetry integration, and data-driven testing for competitive vehicle readiness with emphasis on real-time data processing and quality assurance.

Globus Eight, Gurgaon.....

Working Student, IP Specialist

Nov 2015 - Jan 2018

Developed telemetric fleet monitoring for a 47-vehicle delivery fleet, reducing downtime by 5% over 12 months and building real-time health dashboards for operational insight. Supported pilot product sales, incident analytics for commercial deployment, and established foundational data management practices for fleet operations.

Team Alacrity (Formula Student), Gurgaon.....

Software/Hardware Engineer

Apr 2015 - Feb 2018

Designed electronics and sensors for racecars, led turbo calibration, enhanced diagnostic tools for competition readiness, and supported team success at national contests with focus on data collection and performance analytics.

Education

University of Stuttgart

Germany

M.Sc., Autonomous Systems, Specialization: Machine Learning, Robotics, Computer Vision Apr 2019 - Jan 2023

NorthCap University

Gurgaon

B.Tech, Computer Science Engineering (Data Science)

Aug 2014 - May 2018

Skills

Machine Learning & AI: Deep learning, LLM, RAG, agentic AI, recommender systems, DQN, GANs, LSTM, CNN, transfer/meta-learning, clustering, synthetic data, signal completion, user modeling, RL techniques

Data Management & Governance: Data governance frameworks, data quality management, metadata management, data architecture, data stewardship, enterprise data strategy, GDPR compliance, data catalog implementation

Privacy Engineering: GDPR compliance, privacy-safe ML deployment, data anonymization, federated learning, regulatory compliance

Frameworks: Scikit-learn, TensorFlow, PyTorch, DeepCTR, Faiss, MLFlow, OpenCV

Cloud & Data: Azure (Databricks, Synapse, Delta Lake), AWS (SageMaker, S3, Lambda), campaign optimization, cross-dataset training, data pipelines, dashboards

DevOps: Docker, CI/CD, ML automation, monitoring, agile methodologies

Programming: Python, Java, C++14, C, SQL, Spark, MATLAB, ROS, Simulink, VHDL/Verilog

Certifications

CDMP (In Progress): Certified Data Management Professional - Expected completion Q4 2025

SAFe 6.0 Agilist: SAFe, Jul 2025

Salesforce Platform Developer 2: Salesforce Trailhead, Feb 2023

Machine Learning Specialization: Coursera, University of Washington, Mar 2018

Interests

Motorsport (FMSCI Entrant License, IARC autocross), football (semi-professional), basketball, music (performer at The Westin Hotel, TEDx).