K I Ajay Menon

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Google Scholar

Professional Experience

PhD Candidate   Munich, Germany   Apr 2025 – Present
DENSO

▶ Distributed AI research with TUM focusing on federated and multi-agent learning for automotive systems.

Research Assistant   Stuttgart, Germany   Dec 2023 – Mar 2025
ARENA2036

▶ Standardization of AI use cases using AAS and EDC.

Master Thesis   Aalen, Germany   Jun 2024 – Dec 2024
ZEISS

▶ Production data and model pipeline with synthetic data generation and edge deployment for industrial vision.

Working Student   Kusterdingen, Germany   Mar 2023 – Nov 2023
Bosch

▶ eBike module modeling and battery data analysis for performance optimization.

Business Technology Analyst   Bangalore, India   Nov 2020 – May 2022
Deloitte

▶ Design and scaling of data integration pipelines for ERP systems.

Education

Doctor of Philosophy in Distributed AI   Munich, Germany   Apr 2025 – Present
Technical University of Munich

▶ Thesis: Distributed AI (in progress).

M.Sc. in Electrical Engineering (Major in Smart Systems)   Stuttgart, Germany   Oct 2022 – Dec 2024
University of Stuttgart

▶ Thesis: Integration of Asset Administration Shells and Federated Learning in Mobile Assets.

B.Tech. in Electronics & Communication Engineering   Ernakulam, India   Jul 2016 – Sep 2020
Government Model Engineering College

▶ Thesis: RF Sensor for Food Adulteration Detection.

Research

▶ RF Sensor for Food Adulteration Detection. *Progress in Electromagnetics Research Letters* (2020).
▶ Personalized Federated FlowChain for Human Trajectory Prediction. *FLTA* (2025, accepted).
▶ Integration of Asset Administration Shells & Federated Learning in Mobile Assets. *15th IFAC Intelligent Manufacturing Systems (IMS)* (2025, accepted).
▶ Data-Sovereign Architecture for Quality-as-a-Service in Industrial Supply Chains.