

Karthick Manickam

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Portfolio: [Portfolio](#)

LinkedIn: [LinkedIn](#)

ABOUT

Data Science Master's student with software development experience and an interest in Machine Learning and AI. Seeking a Werkstudent role in Software Development or an Internship in ML/AI, and open to relocation.

TECHNICAL SKILLS

Machine Learning & Data Science: Scikit-Learn | Pandas | NumPy | Matplotlib | Seaborn | Regression | Classification | Data preprocessing

Mobile Development: Flutter | Dart | Cross-platform development | Dart | API Integration | REST API | Version Control

Programming Languages: Java | C | SQL | Python

Development Tools: Git | Figma | Github copilot | App center | Figma

Software Engineering: Agile & Scrum | Github | UI Component design | Testing | Debugging

WORK EXPERIENCE

Flutter Developer – Avasoft

December 2023 – October 2024

India

- Contributed to 3+ production Flutter applications and 2 Appify release phases, delivering mobile features, reusable UI components, and backend integrations.
- Built and maintained cross-platform functionality using Flutter, Dart, REST APIs, Firebase, and cloud services.
- Worked on AI-powered fitness and expense-tracking applications, integrating backend services and intelligent features.
- Collaborated in Agile teams to deliver scalable, responsive, and user-centric mobile experiences.
- Successfully completed 7+ Flutter technical assignments involving UI development, API integration, Firebase services, and state management.

PROJECTS

AI-Powered Vehicle Affordability & Financial Risk Analysis

- Developing an AI-powered vehicle affordability and financial risk analysis platform using Machine Learning, FastAPI, Docker, and Flutter.
- Building three predictive models: Vehicle Price Prediction (Regression), Potential Savings Prediction (Regression), and EMI Risk Prediction (Classification).
- Implementing data preprocessing, feature engineering, model evaluation, and ML pipelines using Scikit-learn.
- Designing FastAPI-based prediction APIs and preparing Dockerized deployment for scalable backend integration.
- Integrating ML services into a Flutter application with affordability insights and interactive vehicle visualization.

Deep Focus

- Developing a cross-platform productivity and wellbeing application to help users maintain focus and minimize digital distractions.
- Implemented focus management, app-blocking mechanisms, productivity insights, mood tracking, localization, weather API integration, maps functionality, and local database support.
- Applied a scalable MVVM-inspired architecture with Riverpod state management, reusable widgets, responsive UI design, and Android Method Channel integration.
- Planning on enhancements including biometric authentication, AI-driven suggestions.

Appify

- Planned and executed a developer-centric mobile template library to accelerate app development through reusable UI components.
- Planned and implemented customizable screens, navigation systems, and modular UI elements for rapid integration.
- Enhanced the platform in Phase 2 by introducing interactive components such as carousels, filters, and dynamic menus.
- Enabled a plug-and-play architecture, significantly reducing UI development time while maintaining design consistency.
- Focused on scalability and flexibility, allowing developers to generate tailored interfaces with minimal input.

Herse

- Developed an AI-powered fitness and wellness application with personalized workout recommendations and adaptive goal-setting features.
- Implemented health tracking, voice feedback, smart notifications, and multilingual support to enhance user experience.
- Supported a variety of workout programs including strength training, cardio, yoga, and stretching.

EDUCATION

Dr. Mahalingam College of Engineering and Technology

2020 - 2024

B.E in Computer Science and Engineering - 9.0 CGPA

Trier University

2025 - Current

Masters in Data Science

Relevant Coursework: Numerical Optimisation, Big Data Analytics, Data Mining, Machine Learning, Statistical Methods of Data Science.

CORE COMPETENCIES

Problem-solving
Analytical thinking
Team collaboration
Communication
Ownership & responsibility
Adaptability
Attention to detail
Structured working style
Ability to multitask.

LANGUAGES

English (C1), Tamil (Fluent), German(A2)