


Megha Sudheendran

[Portfolio](#)

[LinkedIn](#)

Email megha_ai@outlook.com

Phone +33 (0) 75 188 87 16

 An AI/ML Engineer and current **PhD Researcher at Inria, University of Lille**, focusing on applying Large Language Models (LLMs) for legacy code migration specifically translating Fortran code using cutting-edge generative AI techniques.

With hands-on experience in building scalable AI solutions across NLP, RAG (Retrieval-Augmented Generation), and Azure AI platforms, I bridge academic research with real-world application. I've developed and deployed LLM-powered systems in industry settings, fine-tuned chatbot memory mechanisms, and engineered prompt optimization workflows to enhance AI responsiveness and reliability.

My background spans from Android development to enterprise data engineering and Generative AI R&D. I thrive in interdisciplinary environments where deep learning, cloud infrastructure, and legacy software modernization intersect.

Soft Skills

- Collaboration & Teamwork
- Effective Time Management
- Adaptability
- Communication and Presentation
- Fast Learner
- Prioritise Tasks
- Involvement
- Self-Learning
- Open Mindedness
- Work Ethics

Areas Of Expertise

- Artificial Intelligence
- Azure AI
- Generative AI
- Machine Learning and Deep Learning
- DevOps
- NLP
- Predictive Modelling
- Large Language models (LLM)
- Cloud Computing
- Business Analytics
- Continuous Integration & Continuous
- Delivery (CI / CD)
- Prompt Engineering
- Data Visualisation

Technical Skills

Framework, Libraries & Tools: LangChain, Chainlit, RAGAS, Azure OpenAI, IntelliJ IDEA, Orange3, NumPy, Pandas, Keras, Plotly, Scikit-learn, Matplotlib, TensorFlow, TIBCO Spotfire, Django, Docker, FastAPI, Streamlit

Programming Languages: Pharo, Python, Java

Database: PostgreSQL, MySQL, SQLite, Azure AI Search, Chroma DB

Education



PhD Student - Scientific Field: Information and Communication Science and Technology (in progress)
University of Lille, France
Expected completion: 2028



Master of Science in Artificial Intelligence Systems
EPITA Paris, France
2021 - 2023



Bachelor of Technology in Computer Science and Engineering
University of Kerala, India
2009 - 2013

Employment History



PHD Researcher
Inria Lille, France
05/2025 - Present

Roles & Responsibilities

- Experimentation with LLMs for Fortran migration



AI / ML Engineer
Mind7 Consulting, Paris, France
03/2024 - 01/2025

Roles & Responsibilities

- Developing and implementing Generative AI and LLM projects, aligning them with business objectives to drive strategic outcomes and maximize impact.
- Engineered applications utilizing Azure OpenAI and Azure Semantic Search for Retrieval-Augmented Generation (RAG), significantly improving efficiency and performance in AI-driven projects.
- Focused on optimizing the performance of a RAG-based chatbot, including techniques like re-ranking, converting tables to plain text, and transforming documents to Markdown (Pandoc) to enhance response accuracy and context.
- Enabled LLM Memory for the chatbot, implementing memory trimming and summarization to improve chat continuity and user experience.
- Enhanced AI-driven responses through prompt engineering, prompt fine-tuning, and query rephrasing, resulting in more precise and relevant interactions within the RAG-based framework.
- Consistently researching cutting-edge AI/ML technologies in the R&D lab and delivering presentations to enhance team and client awareness, driving informed decision-making and adopting new technologies and application features to automate internal processes and meet diverse client needs.
- Deploying AI applications on Azure VM, resulting in faster deployment of AI-driven solutions.



Data Engineer

Apiday, Paris, France

04/2024 - 03/2024

Roles & Responsibilities

- Collected and cleaned data from diverse sources, ensuring high quality and integrity for accurate analysis and reporting.
- Implemented functionalities to enhance data accuracy and accessibility, utilizing Airtable for streamlined data management.
- Applied BERT sentence transformers to automate sentence mapping between sources and databases, improving data integration efficiency.
- Designed and deployed cloud functions to optimize application performance, resulting in faster and more reliable operations.
- Testing and validating solutions to meet project requirements and enhancing data cleaning processes.
- Creating Python functions for data export in various formats, enabling easy data sharing and reporting capabilities.
- Ensure clear and understandable documentation for both technical and non-technical audiences.



Data Scientist Intern

Tibco, Paris, France

09/2022 - 02/2023

Roles & Responsibilities

- Led the AlaaS initiative at TIBCO by developing reusable AI components that improved intelligence across data science products, with a strong focus on CI/CD pipeline implementation, unit testing for machine learning models, and enhanced documentation.
- Conducted comprehensive research on Affinity Analysis for Spotfire, advancing the field through the investigation of various algorithms and contributing valuable insights.
- Collaborated with cross-functional teams in infrastructure and AI to seamlessly integrate AI systems into existing infrastructures and scale distributed applications, ensuring smooth and efficient deployment.
- Applied scientific expertise to analyze, design, implement, and monitor IT and big data architecture, optimizing systems for superior performance and increased efficiency.



Programmer - Android

Srishti Innovative, Trivandrum, India

01/2016 - 08/2019

Roles & Responsibilities

- Developed custom Android mobile applications using Java and the Android Application Framework, delivering tailored solutions that met user needs and performance standards.
- Integrated multiple sign-in options, including Google sign-in, Facebook login, and mobile number verification using Facebook Kit, enhancing user convenience and security.
- Incorporated third-party payment methods, such as PayPal, Stripe, and in-app payments, to facilitate seamless and secure transactions within the application.
- Collaborated with version control systems like Git to efficiently develop and manage code, ensuring code quality and version consistency.



Software Engineer - Trainee

J'OvertMatics Technologies, Trivandrum, India

06/2014 - 12/2014

Roles & Responsibilities

- Web Application Development and Database Management.
- Maintained databases by writing complex SQL queries and stored procedures

Certification / Training

- **Generative AI Fundamentals**, Data Bricks, 2024
- **NLP for ML with Python: NLP Using Python & NLTK**, Australian Computer Society, 2024
- **Associate Cloud Engineer**, Google Cloud, 2023
- **Tibco Spotfire Certified Professional**, TIBCO Inc, 2023
- **Data Analytics and Visual Experience**, Accenture, 2023
- **Information Extraction from Free Text Data in Health**, University of Michigan, 2022
- **Data Analytics Fundamentals**, AWS, 2022
- **Fundamentals of Deep Learning**, NVIDIA, 2021
- **Machine Learning Using Python**, NIELIT, 2020
- **Unstructured Data Analytics and Natural Language Processing**, ICFOSS, 2020