



## Greshma Shaji

**Date of birth:** 26/07/1999 | **Nationality:** Indian | **Phone number:** (+49) 1789375525 (Mobile) |

**Email address:** [greeshmashaji123@gmail.com](mailto:greeshmashaji123@gmail.com) | **LinkedIn:**

<https://www.linkedin.com/in/greshma-shaji-1825941b6/> | **GitHub:**

<https://github.com/GreshmaShaji> | **Address:** Bauerngasse 3B, 90443, Nürnberg, Germany (Work)

### WORK EXPERIENCE

01/02/2024 – CURRENT Walldorf, Germany

#### MLOPS ENGINEER WORKING STUDENT SAP

- Developed an HTML report generator using Go within Azure pipelines to identify errors across pipeline stages and recommend solutions via an LLM model, enhancing error handling and operational efficiency.
- Integrated a REST API to facilitate communication between the error reporting system and the LLM, parsing errors as input strings and receiving solutions formatted as JSON objects for display in HTML reports.
- Conducted rigorous testing of various pipeline stage errors to validate the accuracy of the error summary reports, ensuring reliable display of LLM-provided solutions.
- Utilized Excel for data manipulation tasks including merging and sorting datasets, supporting data analysis, and reporting processes.
- Designed and implemented a resource cleanup module in Go to automate the clearing of resources post-pipeline execution, significantly reducing manual workload and preventing resource wastage.
- Developed a voice-enabled chatbot to support pipeline queries using browser-based voice recognition, pyttsx3 for text-to-speech, SentenceTransformer for embeddings, and SAP BTP's GPT-4-32k for LLM-based responses. Developed a Flask backend to handle voice queries and serve the chatbot interface.

16/06/2023 – 15/12/2023 Nürnberg, Germany

#### STUDENT RESEARCH ASSISTANT FRAUNHOFER IIS

- Successfully contributed to the development of an advanced recommendation system, improving the precision and efficiency of patient treatment planning.
- Enhanced the team's data analysis capabilities by employing Python and its libraries for exploratory data analysis.
- Improved prediction accuracy and reliability by implementing a Random Forest Classifier and fine-tuning it using Scipy.
- Ensured transparency and reproducibility of the machine learning model by integrating mlflow into the workflow.
- Fostered effective teamwork and collaboration through the establishment of a well-maintained code repository on GitLab.

15/10/2022 – 13/04/2023 Munich, Germany

#### WORKING STUDENT IN QUALITY ASSURANCE RETORIO

1. Highly skilled Automation Test Framework Developer with experience in designing and developing test automation frameworks using Puppeteer and Jest for Retorio AI platform.
2. Integrated automation frameworks on continuous integration tools (GitLab) to ensure efficient and effective testing processes.
3. Proficient in manual testing and identifying bugs and issues in the AI coaching and recruiting platform.
4. Scripted test cases using JavaScript to ensure comprehensive test coverage.
5. Reported daily performance to Development team lead to ensure timely delivery of high-quality scripts.
6. Documented test procedures and test results for future reference

11/08/2021 – 02/09/2022 Bangalore, India

#### SOFTWARE DEVELOPER IBM

- UI automation testing and DevOps using Puppeteer, JavaScript and Ansible.
- Expertise in writing automated test scripts using Puppeteer, JavaScript, Jest, Allure and Python.
- Built a new automation framework from scratch for the product Palantir for IBM cloud Pak for Data. Set up automation tests from scratch on Node.js + Jest + Puppeteer
- Daily analyzing tests result

- Mentor and participate in code reviews
- Modified and executed automated and manual test scripts for different modules using Puppeteer.
- Experienced in developing use cases , user interface specification, and user requirement specification document.
- Strong Analytical and Problem solving skill. Quick learner of new software/tools, self-starter, can work independently and in a team.
- Generated reports using Allure framework at the time of execution.
- Attended agile daily scrum and actively shared the risk and roadblocks if any.
- Worked on Ansible, Jenkins and Github.

## EDUCATION AND TRAINING

01/10/2022 – CURRENT Erlangen, Germany

**MASTERS IN DATA SCIENCE** Friedrich-Alexander-Universität Erlangen-Nürnberg

**Address** 91058, Erlangen, Germany | **Field of study** Natural sciences, mathematics and statistics | **Final grade** 2.2 |

**Type of credits** 75/120

01/08/2017 – 30/06/2021 Thiruvananthapuram, Trivandrum, India

**B.TECH(HONOURS)** APJ Abdul Kalam Technological University

**Address** CET Campus, Alathara Rd, Ambady Nagar , 695016, Thiruvananthapuram, Trivandrum, India | **Final grade** 1.6

01/06/2015 – 30/03/2017 Pathanamthitta,, India

**HIGHER SECONDARY EDUCATION (12TH GRADE)** Catholicate Higher Secondary School , Pathanamthitta

**Address** 689645, Pathanamthitta,, India

## LANGUAGE SKILLS

Mother tongue(s): **MALAYALAM**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C1	C1	C1	C1	C1
<b>GERMAN</b>	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## PUBLICATIONS

2021

[Detecting COVID-19 from Chest X-Ray Images using Deep Learning](#)

2021 5th International Conference on Information Systems and Computer Networks (ISCON), 2021, pp. 1-4

## SKILLS

### Technical Skills

- **Programming Languages:** JavaScript, Python, GO
- **Software Development:**
  - HTML5, CSS for front-end development
  - Familiar with creating and integrating REST APIs
- **Databases:** SQL (MySQL)
- **Development Tools**
  - Integrated Development Environment (IDE) : Visual Studio Code (VS Code)
  - Version Control: Experienced with Git
- **DevOps & Test Automation:**
  - DevOps: Jenkins, Ansible, Azure DevOps
  - Test Automation : Puppeteer, Jest, Jasmine

- Familiar with SOAP UI for testing SOAP and REST web services
- **Containerization:** Docker, Kubernetes
- **Data Science & Analysis**
  - Deep Learning: Experienced in building and training models using TensorFlow and Keras
  - Data Analysis and Visualization: Proficient in using Python libraries such as Numpy, Pandas, Matplotlib, and Seaborn
  - Image Processing: Specialized in processing image and audio data
- 1. **Natural Language Processing**
  - a. Sentence Embedding: SentenceTransformer
  - b. Large Language Models: GPT-4-32k from SAP BTP AI Core, Azure AI models
- **Technical Documentation:** Documenting test procedures and results
- **Problem Solving:** Strong analytical and problem-solving skills; strong analytical and problem-solving skills
- **Agile Methodology:**
  - Experience in Agile daily scrum
  - Experienced in using Jira for project tracking and management
- **Operating system:** Windows, MacOS, Linux

## ● PROJECTS

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01/08/2020 – 30/03/2021

### Detecting COVID-19 from Chest X-Ray Images using Deep Learning

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This project is to use chest X-rays to identify COVID-19 images using deep learning models. Since COVID-19 harms the respiratory epithelial cells, we could make use of X-rays to determine the patient's lungs condition. The goal is to use pre-trained models to develop an image classification model that can predict Covid-19 in Chest X-Ray scans with reasonably high accuracy. CNN's are primarily used for medical image classification tasks as they can easily detect the important features and classify them accordingly. Four distinct pre trained models were used for this purpose. In this work, the analysis of the results showed that compared with other models, the DenseNet201 model provides the highest accuracy (96.54%) in detecting chest X-rays. This model can be used by any medical professional on any system to quickly identify Covid +ve patients using chest X-ray scans. The images are collected from kaggle repository and the used tensorflow and keras as neural network frameworks for implementing the project.

01/04/2023 – 31/08/2023

### 3D Dendritic Spine Analysis using Deep Learning

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Designed and executed a research project focused on the analysis of dendritic spines, critical structures in brain function associated with learning, memory, and plasticity. Utilized pre-trained neural networks within DeepD3, which were expert-annotated and validated across diverse datasets, modalities, species, anatomical locations, and fluorescent indicators. Trained the DeepD3 model using microscopy data and achieved outstanding results by employing Mean Squared Error (MSE) loss for both dendritic spines and dendrites. Generated predictions based on benchmark 3D image stacks dataset, which were used to create 3D regions of interest (ROIs) for dendritic spines. Conducted a thorough comparison between the generated ROI results and human-annotated data, calculating recall and precision metrics to evaluate the model's performance. Successfully applied deep learning techniques to automate the quantification of dendritic spines, advancing the understanding of neural structures crucial for learning and memory

01/10/2023 – 31/03/2024

### OsmXchange: Online Marketplace for Power Voltage Services

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Led the "Starting Business Ideas @ FAU" project at FAU's Innovation Lab as Chief Marketing Officer (CMO) and Backend Developer, spearheading the initiative focused on Wearable and Ubiquitous Computing. Played a pivotal role in collecting requirements for the OsmXchange platform from Omicron and contributing to the initial Figma design. Conducted user interviews to refine project requirements and iteratively improved the design. Utilized backend development skills in Node.js, Express.js, and MongoDB to create a robust prototype. Presented a compelling pitch in the final round, culminating in the successful completion of the startup idea, showcasing effective integration of marketing strategies and technical development expertise.