SHREYAS DEVARAJ

sdevara8@ncsu.edu | +1 (840) 207-8651 | shreyasdvrj.github.io | linkedin.com/in/shreyasdvrj

EDUCATION

North Carolina State University, Raleigh, NC   August 2024 - May 2026
Master of Computer Science   *4.0/4.0*
Courses: *Artificial Intelligence, Neural Networks, Automated Learning and Data Analysis, Applied AI in Industry, Design and Analysis of Algorithms, Software Engineering*

PES University, Bangalore, India   August 2019 - May 2023
Bachelor of Technology in Computer Science and Engineering
Courses: *Machine Learning, Cloud Computing, Data Structures and Advanced Algorithms, Web Technologies, Information Retrieval, Computer Networks, Web Security*

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, C, C++, ABAP
- **AI & Frameworks:** Langchain, LangGraph, TensorFlow, Scikit-learn, SpaCy, PyTorch, Data Wrangling, Matplotlib
- **Frontend & Backend:** React, JavaScript, NodeJS, TypeScript, RESTful API, FastAPI, Flask
- **Tools:** Git, Docker, Kubernetes, SAP GUI, ABAP Development Tool, Visual Studio, Eclipse, Jenkins
- **Cloud and Database:** AWS, Azure, SAP BTP, MySQL, PostgreSQL, MongoDB

WORK EXPERIENCE

SAP

Associate Developer, MDI   July 2023 - July 2024
- Designed, developed and deployed microservice features for the SAP Master Data Integration Cloud Service ABAP Client
- Created end-to-end Fiori applications using **ABAP RAP** for CRUD operations, generating API documentation with Swagger
- Built custom T-codes for SAP GUI to be able to perform class actions for the Pull and Push model on MDI object instances
- Conducted performance tests on **100,000 instances**, identifying and resolving bottlenecks to optimize ABAP application performance
- Led and mentored **5 scholars** on an **SAP Joule** product, oversaw all BTP Cockpit service instances for *Innvent for Scholars* challenge

SAP iXp Intern   January 2023 - July 2023
- Wrote comprehensive unit tests with 100% code coverage and updated existing functionality in ReasonML for MDI object instances
- **Automated** CDS object deployment using custom shell scripts, cutting manual deployment effort by **3 hours** per instance
- Collaborated with the team to optimize backend workflows and improve REST API integration for scalable MDI object operations
- Built a metaverse game on Unity at SAP *d-shop*, presenting at SAP *d-com* **engaging 100+ participants** with topics on GenAI

Schneider Electric

Software Development Intern   May 2022 - July 2022
- Developed a **full-fledged** bookstore e-commerce website using MERN stack, applying web development and Agile best practices
- Enhanced website functionality by building complex **StencilJS** components from Figma designs, collaborating with the UI/UX team
- Gained a broad understanding of the Web Experience Team's workflow and contributed to the **CI/CD process** of SE's website

PROJECTS

d-shop Assistant   Python | GPT | Langchain | Graph API
- Designed a Generative AI assistant for *SAP d-shop* internal wiki and support tooling using LLMs and RAG techniques
- Tailored the chatbot to the unique requirements and context of SAP d-shop, for context-based responses and utilities
- Integrated with Teams, GitHub, and Outlook via REST APIs to automate onboarding and internal support workflows
- Used prompt engineering and task orchestration to streamline knowledge retrieval and reduce manual query handling by **60%**

Eventflow.ai – Agentic Application   LangGraph | Langchain | Python | Fast API | TypeScript | CopilotKit
- Developed an agentic assistant integrating LLMs (ChatGPT, Llama, Gemini) to automate task generation via multi-agent reasoning
- Built full-stack architecture using FastAPI (backend) and TypeScript with CopilotKit (frontend) for interactive agent collaboration
- Designed an interactive chat that dynamically understands event context and generates tasks using LLM-powered reasoning
- Built a full-stack architecture combining FastAPI (backend) with a TypeScript frontend powered by CopilotKit for agent collaboration.

Question Answering System using Knowledge Graphs   Python | spaCy | NLTK | networkX
- Incorporated the use of Knowledge Graphs into an NLP model, enabling it to answer complex questions within a knowledge base
- Utilized entity pair extraction and part-of-speech tagging techniques to improve the model's accuracy and efficiency
- Achieved an accuracy of **80.13%** on multi-hop questions, outperforming BERT on the SQuAD and Multi-RC datasets
- The paper has been published in **IEEE Xplore** - https://ieeexplore.ieee.org/document/10134047

BioInsight - Biomanufacturing Analytics Platform   Python | Scikit-Learn | Tensorflow | Matplotlib | Streamlit
- Developed an end-to-end analytics platform for BTEC to analyze and model biolector data from 1mL and 30L scale experiments
- Built and evaluated multiple ML pipelines for KPI prediction, time series forecasting (LSTM), and outlier detection (Isolation Forest)
- Designed and implemented interactive visualizations and model comparison modules and detecting anomalies presented on Streamlit
- Improved decision-making and resource use by forecasting pH, DO, and temperature trends across time using trained neural models

ACHIEVEMENTS

- **VenturePack Challenge:** Awarded **$3500 prize** for building and presenting Eventflow.ai, an agentic event planning platform
- **Hack_NCState**: Winner of the flagship hackathon among 60+ teams with a full-stack and VR project on gamified financial literacy
- **Community of Data Science, Head of Natural Language Processing**: Led and mentored the NLP division, organizing hackathons and technical events for over 300 participants