

SWAPNIL SOMASHEKHAR HOSKATTI

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Full Stack Software Engineer with a strong background in AI, machine learning and data science. Experienced in developing and deploying solutions using advanced technologies. Proven skills in effectiveness with team work, dedicated to innovation and continuous learning.

EXPERIENCE

University of North Carolina at Charlotte

Research Assistant

Charlotte, NC

Sept 2023 - May 2024

- Collaborated with research on Graph Neural Networks, identifying causal links in event relationships through ICEWS and POLECAT datasets; developed, trained and discovered inferences from DGL graphs.
- Implemented RAG Techniques using the graph data to find out LLM graph interpretation capabilities.
- Deployed GCP Cloud Functions for GenAI Backend, integrating LangChain RAG techniques, Pinecone Database, and OpenAI API, improving response accuracy to 95% of the original Vanilla approach.
- Devised a Next.js, React.js front-end and a Node.js back-end using RAG for conversation memory on AWS using Amplify and Lambda.

University of North Carolina at Charlotte

Graduate Assistant - Computer Vision

Charlotte, NC

Sept 2023 - Dec 2023

- Designed assignments that reinforced key principles, resulting in a 20% improvement in student performance.
- Advised students on project ideas, leading to the successful completion of 10+ innovative projects.

Marand Builders Inc.

Data and Technology Analyst Intern

Charlotte, NC

June 2023 - Aug 2023

- Designed an ERD Diagram and developed ETL pipelines using Azure Data Factory to stream data into Azure Database, leading to 90% reduction of operational efforts.
- Incorporated data-driven dashboards in PowerBI for enhanced data visualization and analysis.

University of North Carolina at Charlotte

Instructional Assistant - Parallel Computing

Charlotte, NC

Jan 2023 - May 2023

- Enhanced the grading system for projects using Java leading to 50% reduction in grading related efforts.

Teradata

Associate Data Engineer

Mumbai, India

Sept 2019 - June 2022

- Assisted writing shell scripts for on-premise to AWS and Azure Cloud migration causing upward of 90% of reduction in migration efforts.
- Led Backup and Restore project, decreasing human supervision by 80% by automating the data pipelines.
- Developed a unified tool using Java, ANTLR for ETL jobs platform migration, accompanied by insightful dashboards for informed decision-making, resulting in 75% reduction in workload.
- Automated data pipelines and project build jobs using Jenkins, enhancing efficiency and modernized existing tools by developing Python and Bash Scripts, further simplifying the code base.

SKILLS

Programming Languages:	Python, C, C++, BASH, Java, JavaScript, SQL, PHP, TypeScript
Libraries/Frameworks:	Ollama, Scikit, OpenCV, PyTorch, Node, Django, Flask, DGL, Streamlit, Express.js, Tensorflow, React.js, Angular.js, Next.js
Databases:	ChromaDB, PostgreSQL, Oracle, MySQL, Teradata, SQLite, MongoDB, GraphQL, Pinecone
Tools:	Git, Jenkins, Azure, Microsoft, Linux, Google Cloud, Docker, PowerBI

PROJECTS

Enhancement to Canvas Notification System *React.js, Node.js, Express.js, MongoDB, Flask, RestfulAPI* [Github](#)

Developed an Canvas demo with added feature to notify students/faculty about the upcoming tasks.

The front-end was developed using React.js, and the back-end API using Node.js and Express.js.

Creating Stunning Animations from Still Images *Python, PyTorch, OpenCV, Scikit, Keras, cGANs* [Github](#)

Utilized cGANs and CNNs to create animations from videos and applied them to still images using Pose Estimation.

Melanoma Skin Cancer Detection *Python, Flask, Tensorflow, OpenCV, Scikit, Keras* [Github](#)

Implemented a skin cancer detection system by performing histogram analysis of the images to extract the ROI, using CNN and RNN to train and test the model achieving an accuracy of 72.63% in classifying as Benign/Malignant.

EDUCATION

University of North Carolina at Charlotte

M.S. Computer Science *GPA : 4*

Charlotte, NC

Aug 2022 - May 2024