

Divya Durgavarjhula

EDUCATION

UNIVERSITY OF WISCONSIN - MADISON

Madison, WI

Bachelor of Science in Computer Science and Data Science, GPA: 3.72

September 2021 - May 2025

Completed Coursework: Data Structures, Artificial Intelligence, Operating Systems, Matrix Methods in Machine Learning

In-progress Coursework: Algorithms, Databases

WORK EXPERIENCE

PUBLICIS SAPIENT

New York, NY

Software Engineer Intern

June 2024 - Present

- Designed and developed a chatbot integrated with client operations data to provide graphs, insights, and predictive analysis for senior leaders of the client company, and presented project to stakeholders.
- Used React/Node.js and HTML/CSS/JS for full-stack development and server/client communication.
- Used Python along with Vertex AI, BigQuery, and Langchain for the chatbot capabilities.

MOLECULAR IMAGING / MAGNETIC RESONANCE TECHNOLOGY LAB

Madison, WI

Research Assistant

May 2023 - Present

- Designed, trained, and validated a MONAI DynUnet image segmentation model on over 100 whole-body CT images.
- Evaluated the most effective techniques and model configurations for optimal training (PyTorch, CUDA, Docker).
- Currently researching t-SNE image embedding techniques and retrieval-augmented generation for text-to-image models.

Undergraduate Researcher

September 2022 - May 2023

- Utilized deep learning to optimize medical image segmentation, specifically using a spleen image dataset.
- Trained a PyTorch MONAI model and evaluated validation accuracy for various model configurations.

QIDDS (startup project)

Fremont, CA

Software/Data Engineer

August 2023 - Present

- Designed/developed a Java application using Spring Boot to automate the import of academic resource data from Excel sheets into a PostgreSQL database, and implemented RESTful API endpoints to efficiently retrieve data.
- Integrated AWS secrets manager with the Spring Boot application to securely manage API keys, database credentials, etc.
- Working on integrating a chatbot to enhance user interaction and automate responses to common queries.

DYNAMIC DDX (research/startup project)

Madison, WI

Full-Stack Web Developer

January 2023 - Present

- Designed/developed an online interactive wiki for entering and retrieving information from textbooks/electronic health records in a way that follows the diagnostic thought process.
- Used React/Node.js to handle server/client logic and API requests, and SQL to efficiently manage and query our database.
- Co-authored a publication detailing the project, currently under review.

COBIZ (personal project)

Fremont, CA

Software/Data Engineer

May 2020 - October 2020

- Designed/developed a Java program to call COVID-19 data APIs with data for different countries, show data based on various search criteria, and display relevant trends — published to Google Play and deployed API to the cloud.

SKILLS

- **Languages:** Java, Python, HTML/CSS/JS, C/C++, C#, R
- **Databases/Frameworks/Libraries:** SQL, PyTorch, CUDA, Flask, MongoDB, Node.js, Spring Boot, Langchain
- **Operating Systems:** Linux/UNIX, Android, Ubuntu, Windows, macOS
- **Application/Web Development:** React, REST API, AWS, Git, Docker
- **Project Management:** Agile, Jira, Confluence, Bitbucket

PUBLICATIONS

Wang J, Bermudez D, Chen W, Durgavarjhula D, Randell C, Uyanik M and McMillan A (2024) Motion correction strategies for enhancing whole-body PET imaging. *Front. Nucl. Med.* 4:1257880. doi: 10.3389/fnume.2024.1257880