Harshith Reddy Nalla

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Full Stack Developer & AI Researcher passionate about creating smart, user-friendly applications. Experienced in bringing ideas to life through NSF-funded and academic projects, blending React, Spring Boot, and Python CNNs. Dedicated to turning complex AI/ML models into simple, impactful tools that improve research outcomes and make a real difference for users.

EXPERIENCE

Research Assistant   **06/2025 – Present**

Computer Science Department.   *University of South Dakota*

- Worked on innovative AI research in medical diagnostics, focusing on pancreatic and dental imaging to help improve early detection.
- Developed AI models with Python, PyTorch, and CNNs for **PanInsight** and **DentiMap**, helping the tools deliver accurate and reliable diagnostic results.
- Designed and built full-stack features for **PanInsight** and **DentiMap** with React and Spring Boot, making the tools faster, easier to use, and more intuitive for researchers and Doctors.
- Made research more accurate by improving how data was cleaned, models were tested, and results were shown, making findings clearer and ready to be published.

Student Government Association   **08/2023 – 08/2024**

Secretary of Finance Department.   *University of South Dakota*

- Elected to the SGA senate through campus-wide voting.
- Work with other senators and the executive team to address student concerns and improve campus life.
- Represent student interests, share their views on key issues, and volunteer two hours each week for office hours.
- Help manage and decide how student funds are allocated to campus organizations and events.

Projects

UniVibe- Selected for the prestigious NSF I-Corps program as part of the UniVibe team, contributing as a Frontend Developer. This in-progress campus social networking platform, built with React and TypeScript, is designed to enhance student engagement across universities by helping students connect, share, and collaborate through a clean, modern, and responsive interface. Designed and built core UI features while conducting customer discovery to validate market needs and refine the business model.

PanInsight- A full-stack medical web application built with React, Spring Boot, Python, Pytorch, CNNs to detect pancreatic cancer from medical scans, featuring lesion overlays, confidence scores, downloadable reports, and an integrated AI chatbot for better understanding of results and next steps.

DentiMap- A full-stack web application that uses Python, PyTorch, and CNNs to analyze dental X-rays for quick, AI-driven diagnostics. Built with Java Spring Boot and a responsive React frontend, providing instant results with a clean, user-friendly interface.

SKILLS

- **Languages**: Java, Python, TypeScript
- **Frameworks & Libraries:** Spring, Spring Boot, Junit and Mockito, Pytorch, Scikit-learn, React, Tailwind CSS.
- **Tools:** Git & GitHub, AWS (AWS pipeline, ECS, EKS, EC2, S3).

EDUCATION

University of South Dakota.   **01/2023 - Present**
BS, Computer Science- AI
GPA: 3.565

DSA with Java   **05/2025**
Professional Certificate