Prajwal Venugopal

+1 812-322-4878 | pvenugop@iu.edu | Linkedin | Github | Portfolio

EDUCATION

Indiana University Bloomington | MS, Computer Science | GPA: **3.9/4.0** Bloomington, Indiana | May 2026
Relevant Coursework: Applied Algorithms, Big Data Applications, Software Engineering

Visvesvaraya Technological University | BE, Computer Science | GPA: **8.95/10.0** Bengaluru, India | May 2024
Relevant Coursework: Data Structures, Object Oriented Programming, Cloud, Web Technology

WORK EXPERIENCE

Research Assistant Bloomington, Indiana, USA
Indiana University Bloomington Feb 2025 – Present

- Combined PuppyGraph (graph database and query engine) with Delta Lake for scalable graph querying, transforming relational data into a unified graph model without the need for ETL.
- Optimized workflows for complex multi-hop queries, facilitating use cases such as knowledge graph integration, fraud detection, and cybersecurity.

Software Engineer Intern Bengaluru, India
Celstream Technologies Feb 2024 – Jul 2024

- Enhanced Buckman web application, a leading provider of chemical solutions, using React, supporting up to 1,000 daily users for a seamless experience.
- Collaborated with cross-functional teams to migrate legacy JavaScript products to React, boosting development efficiency and teamwork.
- Resolved 10+ critical bugs in live projects, improving application stability and user satisfaction.

DevOps Engineer Intern Bengaluru, India
Verana Networks Aug 2023 – Oct 2023

- Improved web application performance for CU services with BusyBox server, shell scripts, and Unix commands, reducing response times by 30%.
- Automated routine maintenance tasks using Unix commands and scripting, reducing manual intervention by 50% and saving the team an estimated 10 hours per month.
- Designed and deployed monitoring tools that improved system uptime by 15%, allowing for early detection and swift resolution of potential issues.

TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, Tailwind CSS, HTML, CSS, Gremlin (Graph Database)
Tools/Frameworks: React, AWS, MySQL, PostgreSQL, Docker, Spark, Git, Microsoft Azure, Delta Lake, HDFS, Hadoop

PROJECTS

Noble Cure - Health Care Platform | *Regression Algorithm, Flask, HTML/CSS, PostgreSQL*

- Created a healthcare platform using Python and regression algorithms, processing 200+ prescriptions daily.
- Developed a user-friendly interface with Flask and HTML/CSS, and integrated PostgreSQL, increasing user engagement by 20% and data accuracy by 70%.

MuteSign: Deep Learning Sign Language Recognition | *TensorFlow/Keras, OpenCV, Python, Scikit-learn, Pandas*
DOI: 10.1109/IC-RVITM60032.2023.10435143

- Built a Sign Language Recognition system with CNNs and RNNs, achieving 96% accuracy.
- Executed a multi-stage approach: data acquisition from 1,000 videos, pre-processing, segmentation, feature extraction, and classification, enhancing communication for individuals with physical impairments.

Automated Water Meter Reader | *Arduino Uno, Python, Google Cloud, Google Vision, Twilio API*

- Integrated ESP32 camera modules with meters, reducing billing errors by 90% and enhancing reliability.
- Implemented real-time alerts using Twilio API, ensuring timely notifications for anomalies, improving customer trust and billing accuracy.

CERTIFICATIONS & AWARDS

- Obtained **Microsoft Certified: Azure AI Fundamentals and Azure Fundamentals.**
- Earned **AWS Academy Graduate** status in the **AWS Academy Cloud Foundations** program
- Achieved **1st place** in the highly competitive **Meraki 2023 International Business Plan Competition**

BEYOND TECH

Beyond the tech world, **I've captained** my college cricket team through numerous tournaments, where **strategic thinking and leadership** were key to our success. The skills I've gained on the field **teamwork, resilience, and a tactical mindset** are the same ones I bring to every project I work on.