

Sharath Kumar Karnati

+1(253)-332-2472 | sharathkumarrkarnati@gmail.com | [LinkedIn](#) | GitHub: [sharathkumarkarnati](#)

Professional Summary

Motivated and detail-oriented Software Engineer with a strong foundation in **software development**, **problem-solving**, and **algorithmic thinking**. Quick learner with **excellent communication** and **teamwork skills**, eager to **adapt and contribute to innovative solutions**.

Education

- **Master of Science (MS) in Computer Science, GPA: 3.80/4.0** May 2025
Washington State University, Pullman, WA
Courses: Advanced Algorithms, Web Security, Artificial Intelligence, Data Science, Machine learning, Computer Vision.
- **Bachelor of Technology (B. Tech) in Electronics and Communication Engineering, GPA: 7.79/10.0** June 2022
Vellore Institute of Technology (VIT), Vellore
Courses: C, Java and Python Programming, OOPS, Digital Logic Design, IoT Domain Analysis, Semiconductors, VLSI, Communications, Linear Algebra, Calculus, Statistics, Electronics, Electrical Circuits, Sensors, Probability.

Technical Skills

Programming Languages: Python, JavaScript, R, C#, C++, HTML, CSS

Cloud & Database: AWS (EC2, S3, Lambda), SQL, MongoDB, PostgreSQL

Frameworks & Libraries: React, Node.js, Bootstrap, Sass, Pandas, NumPy, Pytorch, Scikit, Redux, Express

Tools: Git, IntelliJ, VS Code, Jupyter Notebook, R-Studio, Tableau, MS Excel, MS Access.

Work Experience

Data Analytics - Peer Education Programs, OAE, Office of the provost

Washington State University, Pullman

Sep 2024 – Ongoing

- Managed **performance tracking for 33+ peer mentors**, analyzing their **progress and service impact** on students.
- Developed an **automated tracker in Excel**, improving efficiency in monitoring mentor activities, resulting in an **80% increase in tracking accuracy**.
- Designed a **web-portal** for centralized access to mentor details and performance analytics, **enhancing accessibility and reducing manual effort**.
- Led **certification evaluation for the CRLA program**, ensuring mentors meet required standards.
- Implemented **new tracking methodologies**, streamlining **report generation and decision-making for leadership teams**.

Projects

Regale – the Recipe App, Personal Project

Jan 2025

- Built a **dynamic recipe search web app** using **JavaScript, HTML, and SASS**, enabling users to browse **100,000+ recipes** via the **Forkify Recipe API** with dynamic ingredient adjustments based on serving size.
- Added **bookmarking with local storage** and an **API request feature** for adding custom recipes with ingredients.
- Followed **MVC architecture** and designed a **responsive UI** using **OOP principles, event handlers, async/await, and DOM manipulation** for a smooth user experience.

Intrusion Detection System using Machine Learning, Course Project

Oct 2024 - Dec 2024

- Built an Intrusion Detection System (IDS) using machine learning on the NSL-KDD dataset, classifying network traffic as normal or attack with high accuracy.
- Evaluated models like **Logistic Regression, KNN, Decision Trees, Random Forest, XGBoost, and Neural Networks**, achieving **99.89% accuracy** with Random Forest.
- Applied **feature scaling, PCA, SMOTE for preprocessing**, and used feature importance analysis to enhance interpretability and detection of rare attacks.

Movie Recommendation System, Course Project

Sept 2024 - Nov 2024

- Built a **content-based movie recommendation system** using **Python and Stream lit**, leveraging **cosine similarity** on genres, actors, and directors for personalized suggestions.
- Designed an **interactive web app** with tabs for **recommendations, top-rated movies** (based on IMDb ratings), favorites, and bookmarking.
- Designed an **intuitive sidebar** for seamless navigation, enhancing user experience and accessibility.

Resume/CV Parsing with NLP, Course Project

Feb 2024

- Developed an NLP-based Resume Parsing Tool to automate screening using SpaCy for text extraction, tokenization, and named entity recognition (NER)
- Implemented **Cosine Similarity** for **job matching** and trained a **KNN model** to categorize resumes with high accuracy.
- Processed **2,400+ resumes**, reducing manual screening time by **70%** and improving candidate-job alignment.

Leadership Experience

Secretary (WSU Cricket Club)- Washington State University, Pullman

Oct 2023 – Ongoing

- **Managed a team of 20-25 members**, overseeing logistics, budgeting, and coordination with WSU for funding and travel. Fostered teamwork and streamlined operations using **organizational and communication skills**.

Mentor (IEEE organization) – Vellore Institute of Technology, Vellore

Dec 2018 – Aug 2019

- Conducted **hands-on workshops** and interactive sessions, **mentoring** students in technical skills and fostering active participation in IEEE initiatives, ongoing projects, and **organizational activities**.