

# Vishwasneha C V

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## About me

Final-year Computer Science and Engineering student (graduating 2026) with experience in developing **scalable applications, APIs, and database-driven systems** using **Java, Python, SQL, and MongoDB**. Skilled in building RESTful services, deploying solutions on AWS EC2, and **integrating ML models into real-world applications**. Achieved **Top 7 nationally in a hackathon** for a deep learning project, demonstrating strong problem-solving and teamwork skills. Passionate about application engineering, cloud computing, and creating impactful software solutions.

## Projects

### Lung Cancer detection using CNN

- **Developed** a deep learning model using **Convolutional Neural Networks (CNN)** to detect lung cancer from X-ray images.
- **Trained** on a dataset of **3,000+ X-ray images**, achieving high accuracy in classifying **cancerous vs. normal** cases.
- Deployed a Flask-based **REST API** with **MongoDB** integration for real-time predictions and data storage.
- **Optimized model performance** through **data augmentation and hyperparameter tuning** for improved accuracy.
- **Achieved national recognition**, ranking **Top 7** in a **national-level hackathon** at SIET, Tumkur (Oct 2024).

**Technologies used:** CNN, Deep Learning, TensorFlow, Flask, MongoDB, X-ray Image Analysis, Data Augmentation, Hyperparameter Tuning, Medical Image Processing.

### Library Management System

- Designed and implemented a **Java-based** application for managing books, users, and transactions.
- Developed **CRUD** operations (Add/Update/Delete/Search) using **Java** and **SQL** for efficient data handling.
- Integrated **JDBC** for database connectivity, enabling seamless interaction with MySQL.
- Enhanced usability with role-based access for admins and users.

**Technologies used:** Java, SQL, JDBC and OOP

### **E-Commerce backend System**

- Developed a scalable backend in Java with RESTful APIs for product catalog, user authentication, cart, and order management.
- Designed and normalized SQL database schemas to handle products, users, and transactions efficiently.
- Implemented secure authentication and role-based access for customers and admins.
- Optimized API performance for high availability and scalability, ensuring smooth data flow between frontend and backend.

Technologies used: Java, REST API, SQL, JDBC, OOP.

### **Sentiment analysis on E-commerce website reviews using NLP**

#### **Amazon Reviews Dataset (24,000+ Reviews)**

- **Developed** a machine learning model to analyze **customer sentiment in Amazon e-commerce reviews**, focusing on **electronic items**.
- **Pre-processed textual data** using **Natural Language Processing (NLP)** techniques to improve model accuracy.
- Developed a Flask-based REST API with MongoDB integration for real-time sentiment predictions.
- Improved accuracy through feature engineering and hyperparameter tuning.

**Technologies Used:** NLP, Machine Learning, Sentiment Analysis, Flask, REST API, MongoDB, Feature Engineering, Hyperparameter Tuning, Data Preprocessing.

### **Education**

#### **Bachelor of Engineering**

**Dec, 2022-Present**

From Kalpataru Institute of Technology, Tiptur, Karnataka, 572201 under Visvesaraya Technological University, Belagavi, Karnataka

Major: Computer Science and Engineering, currently in 7<sup>th</sup> Sem having CGPA of 8.94.

#### **Pre University**

**June, 2020-April, 2022**

From Government PU college, Tiptur, Karnataka, 572201 under Karnataka PU Board.

Major: PCMB, having an aggregate of 88.83%.

**SSLC**

**May, 2019-March, 2020**

From Girls Government Junior College, Tiptur, Karnataka, 572201 having an aggregate of 94.88%.

### **Achievements**

- Ranked Top 7 in a national-level hackathon at SIET, Tumkur (2024).
- Participated in **Google Girl Hackathon (2024)**, showcasing skills in problem-solving and collaborative development.
- Participated in Global-level hackathon at MIT, Bengaluru (2025).

### **Skills**

**Programming Languages:** Java, Python, C++, HTML, CSS, JavaScript.

**Databases:** SQL, MongoDB.

**Web & APIs:** Flask, FASTAPI, REST API development, Spring(familiarity).

**Machine Learning/AI:** TensorFlow, Keras, Scikit-learn.

**Data Science:** Pandas, NumPy, Matplotlib, Seaborn, Plotly.

**Cloud & Tools:** AWS EC2, Git.

### **Soft Skills**

Problem-solving, Collaboration, Time Management, Great Communication skill (I can speak English, Kannada, Tamil and Hindi), Teamwork, Leadership (me and my friends hosted an event in club Phase changers)