# Archana Prasad Nair

Navi Mumbai, Maharashtra

## Education

# Vellore Institute of Technology, Bhopal

Sep. 2022 - May 2026

Bachelor of Technology in Computer Science; Minors in Cloud Computing and Automation

Bhopal, Madhya Pradesh

CGPA: 9.00/10.00

#### Technical Skills

• C++ • Java

• Python

• MySQL

• Data Structures

# **Projects**

#### BlissBloom | NLP, ML

Jan. 2024 - May 2024

- Developed an emotion detection website with an ML model trained to identify text emotions, displaying predictions with emoticons and confidence levels via an Altair chart.
- Integrated a personalized recommendation system with mood enhancement suggestions (e.g., exercise, yoga, movies, music).

#### Sahay – Disaster Management Platform | ML, Flask

Jul. 2024 – Apr. 2025

- Engineered a Random Forest Regressor to predict monthly rainfall using historical data (1901-2017), achieving 97.5% R<sup>2</sup> and 98.5% accuracy.
- Designed data pipelines for preprocessing and visualizing rainfall trends (histograms, line plots) to identify patterns for disaster preparedness.

#### Indian Sign Language Vision | MediaPipe, Flask, OpenCV

May 2025 – Jun. 2025

- Implemented a real-time ISL classifier using Random Forest, coached on hand landmark data for high-accuracy letter prediction.
- Built a Flask-based web app to process images and webcam feeds, displaying detected signs with bounding box visualization.

## Leadership

Cloud Zone Club Feb 2024 – Present

Design Team Lead

 $VIT\ Bhopal$ 

 Led the design and execution of "Code Quest," a gaming and quiz competition with over 100 participants, for AdVITya (college tech fest) in both 2024 and 2025, which included creating promotional materials and coordinating event operations.

#### Extracurricular

# National Youth Parliament Scheme

April 2024

Finance Minister

 $VIT \ Bhopal$ 

 Selected in the Youth Parliament, demonstrated public speaking, leadership, and analytical skills in a simulated parliamentary environment.

### **Smart India Hackathon**

August 2024

PanStamp

VIT Bhopal

• Qualified in the Internal Round of Smart India Hackathon 2024 at VIT Bhopal, and was among the waitlisted teams; developed a comprehensive online platform for philatelists to browse, order, and track philatelic materials, request cancellations, and engage with the philately community, featuring secure payments and admin management tools.

### Languages

• English ••••• • Malayalam

• Hindi •••• • German