

# Achyuth K

Bachelor of Technology

PES University (RR Campus), Bangalore

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GitHub Profile

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## EDUCATION

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### •PES University (RR Campus), Bangalore

*Bachelor of Technology in Computer Science and Engineering*

### •Pre-University (PUC), (96% PCM) | 10th (SSLC), Central Board of Secondary Education (CBSE) (93.8%)

## ABOUT ME

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- I am Achyuth, currently in my 4th year of B.Tech. I have a strong interest in problem-solving, data structures algorithms, machine learning, NLP, and parameter-efficient fine-tuning methods such as LoRA. I am also enthusiastic about cybersecurity and exploring Web3 technologies including blockchain-based systems.

## EXPERIENCE

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### •Center for Cloud Computing and Big Data (CCBD), PES University

*Jun 2025 – Jul 2025*

Intern

- Developed a fine-tuning pipeline using LoRA with 4-bit quantization on Mistral-7B-Instruct; extended experiments to Phi-2 and TinyLlama-1.1B models.
- Documented methodology and results in a formal report and planning to publish a research paper based on this project.

## PERSONAL PROJECTS

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### •Adaptive Text Summarization with Tailored Readability for Kannada

*Ongoing*

*Developing a controllable summarization model for Kannada text*

- Building a controllable text summarization system that generates summaries at different readability levels to serve diverse audiences.
- Designing a modular pipeline for data collection, text normalization, morphological analysis, and custom readability evaluation tailored for Kannada.
- Currently in progress with iterative refinements based on human evaluations and targeted readability metrics.

### •Audia Hub:- A web music player

*A website where you can listen to music and podcasts and have fun.*

- This lets users stream and manage their music library directly in a browser. It features playlist creation, search, and responsive design for seamless listening across devices.
- Technology Used: Javascript, MongoDB, React, CSS, HTML.

### •Foodie Express:- A Food Delivery Web Application

*A food delivery platform built for the OOAD course, showcasing real-world use of design principles and multiple design patterns.*

- Enables users to browse menus, place orders, and track deliveries, with restaurant-side management and live updates.
- Applied Strategy (for delivery methods), Observer (for notifications and order tracking), Abstract Factory (for UI components), and Decorator (for flexible menu item customizations).
- Technology Used: Java, Spring Boot, Thymeleaf, HTML, CSS.

### •Safe Guard Band

*A Fall Detection Band*

- Developed a fall detection band using the MPU6050 sensor and ESP32 microcontroller to accurately detect sudden falls through motion analysis.
- Integrated a heartbeat sensor to continuously monitor the wearer's vital signs in real-time.
- The system provides immediate alerts for potential health emergencies, enhancing safety for elderly individuals.

## TECHNICAL SKILLS AND INTERESTS

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**Languages:** C/C++, Python, JavaScript, TypeScript, SQL

**Frameworks & Libraries:** PyTorch, TensorFlow, React.js, C++ STL

**Tools & Platforms:** Git, Docker, VSCode, Postman

**Databases:** MongoDB, MySQL, PostgreSQL, Elasticsearch

**Interests:** Machine Learning, NLP, Parameter-efficient fine-tuning (LoRA), Cybersecurity, Blockchain/Web3

**Soft Skills:** Problem Solving, Self-Learning, Adaptability