

# Ujjwal Bajpai

ujjwalbajpai.ec23@rvce.edu.in | linkedin.com/in/ujjwal-bajpai | github.com/Ujjwal120605 | leetcode.com/u/ujjwalbajpai

## EDUCATION

- **RV College of Engineering** Bengaluru, India  
*Bachelor of Engineering (Electronics & Communication Engineering), GPA: 8.52/10.0* Jan 2023 – Jan 2027
- **DAV Public School** Paradip, India  
*Class 12th Boards: 91.8%    Class 10th Boards: 97.4%*

## EXPERIENCE

- **IFFCO (Indian Farmers Fertiliser Cooperative Limited)** Jul 2025 – Sep 2025  
*IT Intern* Paradip, India
  - Contributed to **web development tasks** for the HRMS portal, enhancing user interface and functionality.
  - Participated in **instrumentation and plant visits** to gain insights into industrial automation systems and their IT integration.
  - Gained hands-on exposure to the **IT infrastructure** supporting large-scale manufacturing and administrative operations.
- **RVCE ACM Student Chapter** Jan 2025 – Present  
*Member* Bengaluru, India
  - Actively involved in organizing technical events and workshops, fostering a community of technology enthusiasts.
- **Rotaract Club of RVCE** Dec 2023 – Present  
*Member* Bengaluru, India
  - Contributed to various community service initiatives, developing leadership and teamwork skills.

## PROJECTS

- **Hyperspectral Crop Mapping using Deep Learning**
  - Developed a **deep learning model** for classifying and mapping crop types using hyperspectral imagery, achieving enhanced accuracy.
  - Leveraged **Convolutional Neural Network (CNN) architectures** and spectral feature extraction techniques.
  - Aimed at enabling **precision agriculture** through automated crop health and distribution mapping.
- **Battery Management System using Machine Learning**
  - Built a **predictive model** to monitor battery health and efficiency, utilizing historical charge-discharge data.
  - Employed **regression techniques** to estimate battery lifespan and optimize charging cycles, extending battery longevity.
- **Comprehensive Analysis and Prediction System of EV Battery**
  - Developed a system for **analyzing EV battery parameters** and predicting battery life, providing data-driven insights for performance optimization.
- **Noise Cancellation using Machine Learning**
  - Designed an **ML-based pipeline** for real-time background noise suppression in audio signals.
  - Utilized **deep learning models** to effectively distinguish between desired signals and noise for enhanced audio clarity.

## SKILLS

- **Programming Languages:** C++, C, Python, HTML, CSS, SQL (MySQL)
- **Tools Technologies:** Data Structures Algorithms, Object-Oriented Programming (OOP), **Data Science**, Machine Learning (Regression, Deep Learning, CNNs), Web Development, Data Analysis, Operating Systems, Git

## CERTIFICATIONS

- **Database Management Systems** (NPTEL Certificate)
- **C++ Programming** (Udemy)
- **Fundamentals of Operating System** (Udemy)
- **C Programming** (Infosys Springboard)
- BITS Pilani API Hackathon – Unstop Certificate (2nd Runner-up)

## ACHIEVEMENTS

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- Secured **\*\*Second Runner-Up\*\*** at the **\*\*BITS Pilani API Hackathon 2025\*\*** for developing an **\*AI-based Food Compliance System\*** using Computer Vision, NLP, and API integrations to verify food products against regulatory standards.
- Secured **\*\*Rank 913 with 98.9%ile\*\*** in COMEDK.
- Solved **\*\*150+ questions on LeetCode\*\***, demonstrating strong problem-solving skills.
- Solved **\*\*60+ questions on Coding Ninjas\*\*** and earned 360 points.