

# UTSAV PAL

+91 8975599745 | utsavpal2004l@gmail.com | [LinkedIn](#) | [Github](#) |

## EDUCATION

---

- **VIT Bhopal University, India** **CGPA:8.33**  
BTech(Computer Science and Engineering),2026  
**Coursework:** Data Structure, Design, and Analysis of Algorithms, Operating System, DBMS

## PROJECTS

---

- **Advanced Ecommerce Recommendation System | Python, NLP**
  - Engineered a content-based recommendation system with results within 100 milliseconds.
  - Supercharged product recommendations on e-commerce platforms for 1 million products.
  - Attained a remarkable 95% accuracy rate with NLP Models, including Bag of Words and TF-IDF.
  - Seamlessly integrated the Amazon product advertising API for enhanced functionality.
- **Handwritten Digit Recognition | Python, ML, KNN, AI, Numpy, Tensorflow**
  - Employed KNN algorithm to achieve a recognition accuracy of 95% on handwritten digits.
  - Fine-tuned the ML model to enhance performance, resulting in a 20% accuracy improvement.
  - Implemented K-fold cross-validation, ensuring model robustness and reducing variance by 15%.
  - Employed optimized KNN algorithms, reducing computation time by 25% with high accuracy.
  - Engineered an AI architecture with efficiently processing large datasets with a 30% improvement
- **Predictive Health Diagnosis System | Python, AI, ML, Pandas, Linear Regression, Logistic Regression**
  - Developed a Python-based ML model predicting pollution levels with 90% accuracy.
  - Demonstrated proficiency in Python, ML, specifically Linear Regression, for air quality predictions.
  - Achieved 92% accuracy in predicting air quality index using a Linear Regression model in Python
  - Validated through 90% data analysis, ensuring high-quality input and reliable predictions.
  - Conducted comprehensive data analysis, ensuring a clean dataset with 98% data completeness
- **Face Recognition System | Python, ML(KNN), OpenCV**
  - Implemented the K-Nearest Neighbor (K-NN) classification algorithm for face recognition.
  - Utilized OpenCV and HaarCascades for precise frontal face detection under 700 milliseconds.
  - Achieved an outstanding error rate below 3% on a dataset comprising 1,000 images.

## TECHNICAL SKILLS

---

- Languages: Python (Proficient), Java,C++
- Full Stack Development : HTML, CSS, Javascript
- Database: Mysql,
- Data Science: NLP, Standard ML Algorithms(Regression, Classification, Clustering)
- Data Analysis: Numpy, Pandas, Matplotlib
- Developer Tools: IntelliJ, VS Code, Git, Eclipse, Jupyter

## HONORS AND AWARDS

---

- **Solved 50 problems** on [Codechef](#), [Leetcode](#), [Hackerrank](#), Interviewbit and SPOJ.