Kapil Basoa

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Education

J.C. Bose University of Science and Technology, YMCA — **Faridabad, Haryana**
Bachelor of Technology in Computer Science (Specialization: Data Science) — *October 2022 – June 2026*

DAV Public School — **Gurgaon, Haryana**
Class 12: 95% — *April 2021 – March 2022*

AVR Public School — **Gurgaon, Haryana**
Class 10: 95.2% — *April 2019 – March 2020*

Trainings & Certifications

GATE 2025 — **February 2025**
Graduate Aptitude Test in Engineering — *Link*

- Appeared in **Computer Science and Information Technology (CS)** paper.
- Secured a **Score of 33.47 out of 100** with an **All India Rank (AIR) of 15387** among 170,825 candidates.
- GATE Score: 393

Projects

CareerVista — AI-Based Career Guidance System | *Python, Scikit-learn, XGBoost, SVM, KMeans* **Link**

- Engineered an AI-powered career recommendation system leveraging supervised machine learning classifiers (Decision Tree, Random Forest, XGBoost, SVM) and KMeans clustering to predict optimal career paths based on academic performance, skill assessments, and user preferences.
- Performed data preprocessing, feature selection using feature importance scores to enhance model interpretability and reduce input dimensionality.
- Conducted hyperparameter tuning via GridSearchCV to optimize classification model performance.
- Visualized model outcomes using confusion matrix, ROC AUC, and Precision-Recall curves for comprehensive evaluation.

PhishPatrol — Phishing Website Detection System | *Python, Scikit-learn, XGBoost, URL Parsing* **Link**

- Implemented an intelligent phishing website detection system using URL feature engineering and ensemble machine learning techniques (Voting Classifier combining Decision Tree, Random Forest, and XGBoost) achieving high detection accuracy.
- Extracted over 20 URL attributes using custom Python parsers to enhance feature richness.
- Developed ensemble classifiers to improve prediction robustness and reduce overfitting.
- Evaluated models using advanced metrics including ROC AUC, Precision-Recall Curve, and F1 Score for comprehensive performance assessment.

Payment Receipt Generator | *Python, OpenPyXL, Google Cloud Console* Link

- Developed a Python-based desktop application for generating structured payment receipts with itemized transaction details.
- Utilized OpenPyXL for Excel file operations and `datetime` module for timestamping receipt entries.
- Employed object-oriented programming to model companies, customers, and transactions for a scalable and modular design.
- Formatted Excel sheets for clean, readable financial documentation with automated record management.

Technical Skills

Languages: Python (Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn), Java, C, SQL, JavaScript, HTML/CSS
Tools & Platforms: VS Code, Eclipse, Anaconda, Google Colab, GitHub
Technologies & Frameworks: Machine Learning, Deep Learning, Generative AI, Object-Oriented Programming, Data Science, Feature Engineering, Model Evaluation
Relevant Coursework: Data Structures, Algorithms, Database Management, Data Mining, Machine Learning, Artificial Intelligence, Object Oriented Programming, Computer Architecture, Computer Networks