# Arushi Puranik

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## Summary

Motivated Computer Science graduate with strong foundation in Python development, backend services, and machine learning integration. Experienced in building REST APIs with Flask, database integration, and implementing ML models in production-ready applications. Seeking to leverage programming skills and project experience as a Python Developer.

## Education

**Acropolis Institute of Technology and Research** — Indore, India
*B.Tech in Computer Science, CGPA: 7.03/10* — *2021 – 2025*

**Vidya Sagar School** — Indore, India
*Senior Secondary, Percentage: 85%* — *2020 – 2021*

## Projects

**Fingerprint-Based Voting System** | *Python, MySQL, Flask (simulated)* — June 2024 – Nov 2024

- Created a secure web-based voting platform with biometric authentication using Python backend.
- Developed RESTful API with Flask handling user registration, authentication, and vote processing.
- Implemented MySQL database with optimized queries and connection pooling for concurrent users.
- Built modular Python architecture with separate controllers, models, and services layers.

**Hand Sign Detection** | *Python, TensorFlow, OpenCV* — Feb 2024 – April 2024

- Designed a real-time computer vision application to detect and classify hand gestures into corresponding text output.
- Used OpenCV for image capture and preprocessing, and trained a CNN using TensorFlow to identify custom gestures.
- Optimized for latency and accuracy, enabling accessibility solutions for the speech/hearing-impaired.
- Trained and validated the model on a custom gesture dataset, achieving ¿90% classification accuracy.

**California Housing Price Prediction API** | *Python, Flask, Scikit-learn, Pandas* — May 2023 – Aug 2023

- Developed production-ready ML prediction service exposing trained models via REST API.
- Built Flask web service with endpoints for model training, prediction, and model management.
- Implemented data preprocessing pipeline using Pandas for real-time data transformation.
- Created automated model retraining functionality with scheduled Python scripts.

**Backpack Price Predictor Service** | *Python, Flask, Pandas, Scikit-learn* — Dec 2022 – Jan 2023

- Developed e-commerce price prediction microservice using Random Forest algorithm.
- Built production-ready API infrastructure with Flask-RESTX including interactive Swagger documentation, integrated caching mechanism using Python dictionaries for frequently requested predictions, and comprehensive error handling for various data formats and edge cases.
- Created CLI tool for batch processing and API testing using Python argparse, enabling automated model retraining workflows and providing command-line interface for bulk price predictions and system administration tasks.

## Technical Skills

**Languages**: Python, SQL, C++, JavaScript (Basic), HTML/CSS (Basic)
**Web Frameworks**: Flask, Django (Learning), FastAPI (Basic)
**Libraries/Packages**: Pandas, NumPy, Requests, Matplotlib, Scikit-learn, TensorFlow, OpenCV
**Database & ORM**: MySQL, SQLite
**API & Web Technologies**: REST APIs, HTTP Methods
**Testing & Debugging**: Pytest, Unit Testing, Logging, Code Debugging
**Version Control**: Git, GitHub, Git Workflow
**Development Tools**: VS Code, PyCharm, Jupyter Notebook, Google Colab, Virtual Environments