

Vrushil Patel — Data Science | Machine Learning

vtp422.tech@gmail.com | +1(609) 377-4333 | Newtown, PA | [LinkedIn.com/Vrushil](#) | [GitHub](#) | [Portfolio website ↗](#)

Summary

Built ML and experimentation pipelines on 7K+ records, achieving 0.84 ROC-AUC and improving customer retention by 7.4% (~\$15K impact). Experience with LLM-based automation systems integrating APIs and real-time data workflows.

Relevant Projects

Predictive Churn and Retention Analysis with A/B Testing | Python · Scikit-learn · Pandas · SciPy [GitHub ↗](#)

- Built an end-to-end ML pipeline on 7,043 telecom records — ingestion, null handling, one-hot encoding, and class-imbalance correction via stratified splits — then trained and compared Logistic Regression, Random Forest, and Gradient Boosting classifiers.
- Tuned a Random Forest model to 0.84 ROC-AUC and 0.63 F1-score by optimizing decision threshold and recall-prioritized hyperparameters, outperforming the baseline logistic model by 9 AUC points.
- Segmented 1,487 high-risk users via predicted probabilities; a targeted A/B retention campaign raised retention 28.7% → 36.1% ($p = 0.002$), preventing ~112 churns and generating an estimated \$15K net revenue impact.

AI-Powered Telegram Automation Assistant | Python · Ollama · Gemma 2B · REST APIs [GitHub ↗](#)

- Designed and deployed a multi-source data aggregation system integrating Gmail, Canvas LMS, and weather APIs, reducing manual information-gathering time by ~50% through automated daily briefings.
- Embedded a local LLM (Ollama + Gemma 2 2B) to generate concise natural-language summaries from unstructured, multi-source data with no cloud inference costs.
- Implemented scheduled workflow automation for reminder generation and briefing delivery, achieving consistent, low-latency daily performance.

Work Experiences

SALES ASSOCIATE — DUNKIN DONUTS January 2026 – Present | Fairless Hills, PA

- Reduced average customer wait time by ~20% during peak hours by optimizing order sequencing and workflow.
- Maintained high order accuracy and resolved real-time customer issues in a high-throughput environment serving 100+ customers per shift.

STORE ASSOCIATE — 7-ELEVEN STORE June 2025 – August 2025 | Arlington, TX

- Handled multi-modal transaction processing with zero reconciliation errors across a 3-month tenure.
- Delivered prompt customer service across a high-traffic retail environment, consistently resolving inquiries and inventory questions independently.

Relevant Skills

Programming & Databases — Python, Java, C++ | HTML, CSS, JS | SQL | SQLite | MySQL | PostgreSQL

Machine Learning & AI — Scikit-learn | TensorFlow | PyTorch

Software & Tools — VS Code, Jupyter/Google Colab | Git/GitHub | Jira (Agile Methodology) | Power BI/tableau

Cloud & Systems — AWS (S3, EC2) | GCP (BigQuery) | Docker | FastAPI/Flask/Django |

Education

Temple University | College of Science and Technology Philadelphia, PA

Major: Bachelor of Science in Computer Science *Expected Graduation:* December 2026

- **Minor:** Data Science & Computational Analytics GPA: 3.88
- **Additional Standing** — Dean's list: Fall 2025