Parv Patel

✉ parv4careers@gmail.com | ☎ +91-7861080021 | in linkedin.com/in/parvptl | ⌂ github.com/Parvptl | ⌖ parvpatel.me

Education

- **Indian Institute of Technology Palakkad** *Palakkad, Kerala*
  Bachelor of Technology in Data Science *Jul 2023 – Jun 2027*
- **Eklavya School of Science** *Patan, Gujarat*
  Science Stream (Computer Science) *Mar 2021 – Mar 2023*

Experience

- **AI/ML Developer Intern – Easy Algo** *Oct 2025 – Present*
  Remote
  - Joined Easy Algo as a Quantitative AI/ML Intern, contributing to data-driven trading models for financial market prediction
  - Currently building and optimizing ML algorithms to identify profitable entry and exit points, enhancing portfolio returns and decision accuracy

Projects

- **NEXUS: E-Commerce Analytics Platform** | *Python, Streamlit, Scikit-Learn, MLxtend, Plotly* 2025
  - Built end-to-end analytics dashboard processing 100K+ transactions with automated ETL pipeline and feature engineering
  - Implemented statistical inference module (t-tests, Chi-square, ANOVA) and market basket analysis using Apriori algorithm with Support/Confidence/Lift metrics
  - Developed customer segmentation engine with K-Means, Hierarchical, and DBSCAN clustering; PCA for dimensionality reduction
  - Created interactive network graphs using PyVis for product association visualization, reducing manual analysis time by 80%
  - **Live Demo:** ecommerce-analytics-nexus.streamlit.app

- **Human Activity Recognition using Smartphones** | *Python, Scikit-Learn, PCA, SVM* 2025
  - Built optimized ML pipeline to classify human activities using accelerometer and gyroscope data (UCI HAR dataset)
  - Applied PCA for dimensionality reduction, reducing features from 561 to 102 (82% reduction) while improving accuracy from 93.6% to 96.17%
  - Trained and compared Logistic Regression, Random Forest, and SVM models; performed hyperparameter tuning with GridSearchCV (360+ combinations)
  - Exported production-ready pipeline (scaler.pkl, pca.pkl, svm_pca.pkl) for deployment; explored clustering for motion pattern discovery

- **FinTrack: Goal-Based Investment Dashboard** | *Flask, PostgreSQL, HTML/CSS* 2025
  - Built full-stack investment management system with Flask and PostgreSQL for portfolio and goal tracking
  - Designed normalized schema with stored functions for financial computations; implemented secure REST APIs for authentication, portfolio tracking, and advisor assignment with ACID compliance
  - Built responsive frontend using HTML, CSS, and JavaScript for dashboards tailored to users, admins, and advisors

Positions of Responsibility

- **Fest Coordinator – Petrichor, IIT Palakkad** *2025 – Present*
  - Leading end-to-end planning and logistics for IIT Palakkad's flagship inter-college cultural festival
  - Managing inter-department coordination, event scheduling, and resource allocation for 30+ major events

Technical Skills

Programming Languages: Python, Java, R, SQL (PostgreSQL), C, C++, HTML/CSS

Libraries & Tools: Pandas, NumPy, Scikit-Learn, Matplotlib, Seaborn, Statsmodels, Flask, Streamlit, Git, Jupyter, Postman, Excel

Machine Learning: Regression, Classification, Clustering, PCA, Ensemble Methods (Bagging, Boosting, Random Forest), Feature Engineering, Model Evaluation, Hyperparameter Optimization, Interpretability, HMMs

Data Analytics: EDA, Data Cleaning, Outlier Detection, Correlation Analysis, Statistical Inference, Visualization, Dimensionality Reduction, Pattern Recognition, Hypothesis Testing

Operating Systems: Process Management, CPU Scheduling (FCFS, SJF, Priority, RR, MLFQ), Synchronization (Semaphores, Mutex), Deadlocks, Virtual Memory, Paging, Memory Management

Data Structures & Algorithms: Arrays, Linked Lists, Stacks, Queues, Trees, Graphs, Dynamic Programming, Recursion, Hashing, Complexity Optimization

Database Management: Schema Design, Query Optimization, Indexing, Transactions, Concurrency Control