

Parv Patel

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Education

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|---|---|
| • Indian Institute of Technology Palakkad
<i>Bachelor of Technology in Data Science</i> | <i>Palakkad, Kerala</i>
<i>Jul 2023 – Jun 2027</i> |
| • Eklavya School of Science
<i>Science Stream (Computer Science)</i> | <i>Patan, Gujarat</i>
<i>Mar 2021 – Mar 2023</i> |

Experience

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| • AI/ML Developer Intern – Easy Algo
<i>Remote</i> | <i>Oct 2025 – Present</i> |
| • 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

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| • NEXUS: E-Commerce Analytics Platform <i>Python, Streamlit, Scikit-Learn, MLxtend, Plotly</i> | <i>2025</i> |
| • 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 <i>Python, Scikit-Learn, PCA, SVM</i> | <i>2025</i> |
| • 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 <i>Flask, PostgreSQL, HTML/CSS</i> | <i>2025</i> |
| • 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

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| • Fest Coordinator – Petrichor, IIT Palakkad | <i>2025 – Present</i> |
| • 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