

# PRERAK PATEL

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## PROFILE

- Seasoned analyst with 4+ years of experience in data analytics and business intelligence.
- Competencies:** Business Analytics (Time-series, Regression, A/B Testing), Predictive & Prescriptive Data Analytics, Data Mining, Machine Learning, Deep Learning, Data Visualization, Cloud Computing, and Project Management.
- Skills:** SQL, Python, R, Tableau, PowerBI, NoSQL, Excel, Minitab, AWS, SPSS, @RISK.
- aCAP** (Associate Certified Analytics Professional) – December 2021 Candidate.

## EXPERIENCE

**Data Analyst Intern – Red Roof Inn, USA** Aug 2021 – Nov 2021

- Deployed hyper-tuned demand forecasting models (including time-series & deep-learning), using parallelization on Bell Cluster, to improve 48-hour booking window prediction accuracy by ~18%.
- Implemented Gurobi Optimization of short-term dynamic pricing-policy to maximize projected revenue by ~9%.

**Business Analyst – Concept Petro-Chem Pvt. Ltd., India** Jul 2017 – Oct 2020

- Devised a 3-step asset management system – predict performance, incorporate end-of-life/failure criteria, track actual-vs-predicted performance – that helped to reduce the maintenance cost by ~9% and the downtime by ~11%.
- Revised the demand forecasting models, using Python, in the wake of reformed GST tax regime, with a MAPE of ~13%.
- Conducted stochastic LNG market-entry analysis, using @RISK, with an expected profit of ~\$ 0.8M.
- Formulated demand-pooling & segmented-pricing strategy amidst furnace-oil crisis, due to IMO's Sulphur Limit.
- Modeled Margin-Variance analysis, using PowerPivot and Solver, to identify and minimize ~2% profit leakage.

**Project Engineer – Reliance Naval and Engineering Ltd., India** Oct 2016 – Jul 2017

- Achieved 6 project milestones and 2 invoice milestones, with a cumulative value of ~\$ 0.6M.
- Assisted project management team, using MS Project, to reduce cost-overrun by ~5% and time-overrun by ~11%.

## PROJECTS

- Espoir - Mental Health App for Workplace:** Developed a web-platform, using MongoDB, GitHub, Flask & Tableau, to calculate and access mental health indicators at individual as well as organization levels.
- YouTrends - YouTube Video Popularity Predictor:** Built an R (dplyr, Tidyverse) - based interactive webapp, for youtubers, gauging likely popularity of a video using RStudio's ShinyApp package.
- Authenticating Advertisement Categorization:** Categorized Craigslist's sales ads into spam / non-spam, based upon category listed, with NLP (scikit-learn) and Image Processing (TensorFlow) using Scrapy, RNN and CNN models.
- Bitcoin Trends Prediction with Twitter Sentiment:** Conducted Sentiment Analysis of BTC (at hourly basis), using BeautifulSoup, Textblob and Vader, and translating it into an actionable insight for trading strategy using LSTM.
- Database Management System:** Deployed DDL & DML to design a DBMS for a public library using MySQL.
- Kaggle Challenge: Bankruptcy Classification:** Developed a Gradient Boosting & Neural Network Ensemble model using SAS Enterprise Miner to predict bankruptcy likelihood of a firm with 64 predictors (Rank # 1).

## EDUCATION

**Master of Science - Business Analytics and Information Management (STEM)** Dec 2021  
Purdue University – USA

- Winner: ECS Hackathon, 2021 | Kaggle Challenge – Bankruptcy Classification
- 2<sup>nd</sup> Runner-up: INFORMS Data Mining Poster Competition, 2021
- Graduate Teaching Assistant: Database Management Systems.

**Bachelor of Technology - Petroleum Engineering** May 2016  
Pandit Deendayal Petroleum University – India

## CERTIFICATIONS

Tableau Desktop Specialist | AWS Cloud Practitioner | IBM Data Science