

PRERAK PATEL

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PROFILE

- Seasoned business analyst, with **4+ years** of experience in data analytics and business intelligence.
- Competencies:** Business Analytics (*A/B Testing, Time Series*), Machine Learning (*Regression, CARTs, Deep Learning*), Data Management (*ETL, Wrangling*), Data Visualization, Predictive & Prescriptive Analytics, Data Modeling, Cloud Computing, Product Development, Project Management (*Agile*) and Supply-Chain Analytics.
- Skills:** SQL (*MySQL*), Python (*pandas, scikit-learn, TensorFlow, flask*), R (*dplyr, Tidyverse, ShinyApp*), Tableau, PowerBI, NoSQL (*MongoDB*), Excel (*VBA, PowerPivot, Solver*), AWS, PySpark, GitHub, Hadoop, SPSS, @RISK.
- aCAP (Associate Certified Analytics Professional)** – December 2021 Candidate.

EDUCATION

Purdue University, Krannert School of Management – IN, USA **Dec 2021**

Master of Science - Business Analytics and Information Management (STEM-OPT Eligible)

- Winner: *ECS Hackathon, 2021 | Kaggle Challenge* – Bankruptcy Classification Project.
- Graduate Teaching Assistant: *Database Management Systems*.
- Vice President: *Krannert Energy Club*.

Pandit Deendayal Petroleum University – GJ, India

May 2016

Bachelor of Technology - Petroleum Engineering (Major-Upstream Engineering)

PROFESSIONAL EXPERIENCE

Graduate Analytics Consultant – Multinational Lodging Partner, USA

Aug 2021 – Nov 2021

- Deployed hyper-tuned demand forecasting models (including *SARIMA, Prophet & bi-directional LSTM*), 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 market-entry* analysis using *@RISK*, for LNG purification, 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 *Excel simplex solver*, to identify and minimize **~2%** profit leakage.
- Led Systems-Analysis and IT design for successful adoption of *ZOHO CRM (Customer Relationship Management)*.

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-overruns by **~5%** and time-overruns by **~11%**.

PROJECTS

- Espoir - Mental Health App for Workplace:** Developed a web-platform, using *HTML, CSS, Python, Git & Tableau*, to calculate and access mental health indicators at individual as well as organization levels (**Winner - ECS Hackathon**).
- YouTrends - YouTube Video Popularity Predictor:** Built an *R*-based interactive webapp to showcase descriptive & predictive analytics for youtubers to gauge likely popularity of a video using *RStudio's ShinyApp* package (**Rank # 2**).
- Authenticating Advertisement Categorization:** Categorized Craigslist's sales ads into spam / non-spam, based upon category & sub-category listed, with *NLP* and *Image Processing* 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**).

CERTIFICATIONS

Tableau Desktop Specialist | AWS Cloud Practitioner | IBM Data Science | Machine Learning Scientist with Python Data Scientist with R | SAS 9.4 Base Programming | InforMEA Diploma in International Environmental Law & Governance