

Shagun Kala

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SUMMARY

- Data scientist with 3+ years of experience in making data-driven decisions and delivering analytical solutions
- Microsoft Azure Data Scientist Associate; Ranked among the top 20% of data scientists globally across Accenture
- Kaggle Expert; Active contributor and participant in the Data Science Community on Kaggle, GitHub, and Medium

EDUCATION

Applied AI Bootcamp

Machine Learning Certification Program

Sept 2019 - Sept 2020

Malaviya National Institute of Technology (MNIT Jaipur)

B. Tech. Civil Engineering

July 2015 - May 2019

CGPA 8.32

Subodh Public School

Intermediate (10+2)

May 2015

CBSE – 94.4%

TECHNICAL SKILLS

- Data Analytics & Visualizations - ML, Deep Learning, SQL, Statistical Modelling, Predictive Analytics, Power BI, MS Excel
- Programming - Python, Data Structure and Algorithms, C++, Java, HTML, JavaScript
- Cloud Computing & Framework - Azure Platform, Azure Application Insights, Azure Data Lake, Azure Data Factory, Azure ML Studio and pipelines, Flask

WORK EXPERIENCE

Accenture, Gurugram, India | Data Science Analyst

May 2021 – Present

Responsible AI Center of Excellence (RAI CoE):

- Working in the core development team for Accenture's Responsible AI toolkit to build ethical AI solutions
- Developed fairness tests using statistical techniques to identify bias in the data and Machine Learning models
- Implemented explainability packages using InterpretML, GradCAM, and LIME to enable transparency in black box models
- Involved in presenting the RAI toolkit demo to multiple higher leadership across Accenture
- Developing design methodology for Accenture's RAI Algorithmic Assessment to screen AI projects on RAI compliance
- Contributed to a whitepaper on Responsible AI: "Conflict Resolution in Explainability"

Client Vodafone, UK:

- **Cross-Sell Product Research:** Researched potential customers for a new product cross-sell opportunity. Built relevant web crawlers and collected 400+ attributes rich data covering various aspects about the customers and developed a scoring system to calculate the propensity scores for each prospect
- **Customer Acquisition:** Cleaned and pre-processed customer data to create Analytical records. Trained machine learning model to rank potential broadband customers for the client. Received appreciation from the client for substantially increasing their customer acquisition rate

Client Hewlett Packard:

- **Cross-Sell Strategy:** Performed detailed Exploratory Data Analysis to extract useful insights from a large PNIB B2B dataset. Created customer analytical records and trained machine learning models to recommend target customers for cross-selling the 'Greenlake' edge-to-cloud platform

Capgemini, Pune, India | Senior Analyst

Jul 2019 – April 2021

Client eBay, Australia:

- Worked on a seller segmentation analysis. Followed an unsupervised machine learning approach to create a comprehensive data science solution to gauge existing sellers' health, segment sellers, and recommend next best actions. Developed reporting dashboards on Power BI

Client Airbus:

- Developed Image Template Matching algorithm using OpenCV to color-code hatch patterns on aircraft sectional drawings

PROJECTS

Grant Access using Machine Learning – Case Study using a Kaggle Competition Dataset

- Built an employee access control system, which automatically approves or rejects employee resource application
- This is an **End-to-End project** starting from Exploratory Data Analysis (EDA) to Web Application Deployment using Flask
- **Dataset Used:** Kaggle Competition - Amazon Employee Access Challenge
- **Technology/Concepts Used:** Python, Various Encoding Techniques, Classification Algorithms, Ensembles, Forward Feature Selection, Hyperparameter Tuning, Flask Web Framework
- The performance score achieved from the best model lands at the **12th percentile rank on Kaggle leaderboard**
- **Blog Link:** <https://medium.com/analytics-vidhya/grant-access-using-machine-learning-829ad82ffefb>

Stock Market Prediction using News Sentiments – Detailed Time Series Analysis

- An **End-to-End Project** to predict Stock Market Prices starting from the Data Collection stage till Model Quantization for Production use
- **Dataset Used:** Scraped Nifty Index Stock Prices and Twitter News Data
- **Technology/Concepts Used:** Python, Data Cleaning, Feature Engineering, Dickey-Fuller Test, Anomaly Detection, TensorFlow Model Quantization, Building final pipeline with the optimized model
- **Algorithms used:** ARIMA, SARIMAX, Facebook Prophet, LSTM
- This case study is based on a research paper- **Stock Price Prediction Using News Sentiment Analysis from IEEE 2019 Conference-** <http://davidanastasiu.net/pdf/papers/2019-MohanMSVA-BDS-stock.pdf>
- **Blog Link:**
<https://medium.com/@kala.shagun/stock-market-prediction-using-news-sentiments-f9101e5ee1f4>
<https://medium.com/@kala.shagun/stock-market-prediction-using-news-sentiments-dc4c24c976f7>

CERTIFICATIONS AND ACHIEVEMENTS

- Certified in Azure Fundamentals, Azure AI Fundamentals, Azure Data Fundamentals, Azure Data Science Associate
- Received the **'Wizard@Work'** STAR award for FY 2022 for outstanding performance in data science projects at Accenture
- Completed certificate course on Leading with Analytics and AI Virtual Program from Northwestern University
- Secured 5 stars gold badge for python programming on the Hackerrank platform
- Received the **'Best Automation Use Case'** award in 2020 for developing automation solutions at Capgemini
- Certified Capgemini Automation Practitioner
- Ranked amongst the top 200 fastest Rubik's Cube solvers in the country by World Cube Association
- Udemy: Python for Data Science and Machine Learning Bootcamp
- Ranked among the top 1% of candidates in the Joint Entrance Examination 2015

VOLUNTEER & LEADERSHIP EXPERIENCE

- Organized the first ever official WCA-affiliated **Rubik's Cube Competition 'Pink City Open 2018'** in the city of Jaipur, India
- Served as the **Technical Secretary** of MNIT Jaipur's Annual Cultural Fest- Blitzschlag'18 leading a team of 40 people comprising Social Media Strategists, web developers, app developers, photographers, and graphic designers
- Organized multiple **blood donation camps** during under graduation at MNIT Jaipur
- An active member of **Unnat Bharat Abhiyan (NGO)** to educate and help the needy

HOBBIES

- Solving Rubik's Cube
- Graphic Designing
- Playing Cricket, Badminton, and Billiards