KAPIL BHANWARIWAL

ACADEMIC QUALIFICATIONS

Year	Degree /Board	University /Institution	%/CGPA
2025*	Post Graduate Diploma in Business Analytics	IIM Calcutta, IIT Kharagpur, ISI Kolkata	-
2019	B.Tech (Hons.) Civil Engineering	IIT Guwahati	7.19/10
2014	CLASS XII	Mittal International School	88.4 %
2012	CLASS X	Global Public School	9.2/10

KEY SKILLS/TOOLS	Machine Learning, Statistical Inference, API Development, Python, Java, Continuous Integration, AWS

WORK EXPERIENCE (47 Months)

Fidelity Investments	Lead Software Engineer	Bangalore (Aug '19 - Jul '23)

Backend & API	■ Deployed and tested **API** changes in **3** different environment **Dev**, **QA** & **UAT** before deploying them in **PROD** ■ Pushed API changes in **K3** clusters hosted in **AWS** using **CI/CD** pipelines set in **Concourse** and **Jenkins Core** ■ Maintained **10+** APIs as **microservices architecture** for facilitating users onboarding on multiple **ALM** tools ■ Upgraded **Sonar API** to use recommended version of **SpringBoot 2.6** for organisational security compliance
Frontend	■ Renewed and installed **SSL certificates** across all **Highway ALM** environments by using deployment pipeline ■ Enhanced Highway ALM UI for users to provide valid business justification for **Active Directory** role request
Artifactory	■ Worked on **Artifactory Query Language** (**AQL**) to identify dormant **Docker** images to purge from database ■ Conducted Artifactory **DR test** by switching traffic flow to standby region and performed functionality check ■ Ran **vacuum** in **Xray postgres** database hosted in 2 Linux VM to remove **1M+ dead tuples** for optimizing db
Automation & Migration	■ Migrated API pipelines from **Concourse** to **JenkinsCore** & implemented secrets storage in **JC-vault** using **CLI** ■ Developed **Python script** for removing Artifactory invalid manage privileges & set to run weekly by **cron job**
Support	■ Provided **24X7 on-call** assistance to support Artifactory users on rotational basis to resolve **INC** and **SREQs** ■ Reduced average **Maximum Time to Resolve (MTTR)** tickets from **7 days** to **3 days**; a reduction of **57.14%**
Dashboard monitoring	■ Delivered **99.95% Service Level Agreement** (**SLA**) for Artifactory; Maintained application hosted on Linux ■ Established email alerts for Xray **persist** microservice using **DataDog** UI; threshold set at **50k+** queue count

AWARDS AND ACHIEVEMENTS

Competitions & Performance	■ Scored **99.72 %ile** (**QA**) in **CAT** (**2022**); Secured **99.33 % ile** in **JEE Advanced** 2015 among **1.3M+** students ■ Secured **4th** rank among **940** teams in **IDB Analytics 3.0** (**2023**) case competition organised by **IIM Calcutta** ■ Rewarded **120%** performance **bonus** for **Exceptional Performance (EP)** ratings in 2022-23 appraisal cycle

ACADEMIC PROJECTS

Taxi fare prediction using Neural networks	■ Developed **2 Neural Networks** from scratch to predict taxi fares using dataset of **200k+ trips** and **9** features ■ Performed **cleaning** and **feature eng** to add feature **distance;** Used **sigmoid** and **ReLU** function respectively ■ Reduced **MSE** to **4.26** and **5.92** using **200 epochs** and compared with inbuilt **Keras NN** loss of **4.15** and **4.19**
Countries Clustering (C-Linkage)	■ **Scratch** implementation of **K-means** and **C-Linkage Bottom up** clustering of **167 countries** with **9** features ■ Leveraged **Cosine Similarity** for **distance** measure; Obtained **Silhoutte coefficients** of **0.78**, **0.68** and **0.67** ■ Used **Jaccard Similarity** to compare **K-means** results with **C-linkage** and got **scores** of **0.84**, **0.76** and **0.56**
Email Classification (NLP)	■ Classified emails into **spam/not-spam** using **Logistic Regression** and **Naive Bayes** on dataset of **5k+** emails ■ Performed **EDA**, **Stemming** on data and created **Tfidf** space; Obtained accuracy of **0.95** and **0.96** respectively ■ Got weighted recalls as **0.85** and **0.88**; Improved accuracy and recall metric upto **0.98** and **0.98** using **LSTM**
Oil price prediction (Time series)	■ **Predicted price** of US crude oil imports using **Time series modelling** on data of **165** months using **SARIMA** ■ Removed **trend**, **seasonality** and confirmed **stationarity** using **ADF test**; also perform **log-transformation** ■ Selected **SARIMA $(0,1,1)*(0,1,1)_{12}$** as model; Obtained **AIC** of **-3.29**, **MAPE** of **5.22%**, and **Ljung-box > 0.05**
Restaurant Recommender	■ Leveraged **Content based filtering**; Stored info of **10k+** US based restaurants in **K-d tree** for **binary search** ■ Retrieved tags of nearby rest. from user reviewed rest.; created **Tfidf** space by extracting restaurant attribute ■ **Recommended top 5** similar restaurants by calculating **cosine similarity** of restaurant in this feature space
Medical Insurance Approval	■ Scratch implementation of **decision tree** model to classify labelled dataset of **5500+** applicants into **4 classes** ■ Achieved **accuracy** of **0.97** and **recall** values of **1**, **0.93**, **0.71** and **1** for **4** classes by using **entropy based** tree ■ Improved accuracy to **0.98** and recall values upto **1**, **0.95**, **0.85** and **1** for **4** class using **Gini Index based** tree
Pre-Owned Car Price Prediction	■ Predicted price of pre-owned cars, performed **EDA**, plotted the data to study the features & identify outliers ■ Used OHE, correlation analysis & box-cox transform; Used VIF to check **multicollinearity** & feature selection ■ Explored linear models (**MLR, RIDGE & LASSO**), tree-based models (**RF & XGB**) and achieved **R^2** score **0.88**

POSITIONS OF RESPONSIBILITY & EXTRA CURRICULARS

Astronomy	■ **Core team** member of **Technical Board, IIT Guwahati** during year **2016-17** representing **Astronomy Club** ■ **Fame lab India** (**British Council**): Selected for participating in FAMELAB India **Regional Science** Workshop

ELECTIVES : Machine learning, Financial Risk Management, SCA	INTERESTS : Astronomy, Running