

Ashish Patel

Sr. Data Scientist & Author

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ML Research Lab (Medium Blog)

IBM Certified Data Scientist

IBM Certified Quantum ML Engineer

Rank#3 Kaggle Kernel Master

Book: Hands-on Time Series Analytics with Python



SUMMARY

Data scientist and researcher with 5 + years of experience and Total 8+ years of experience in wide functions including Predictive modelling, Data Pre-processing, Feature engineering, Machine learning and Deep learning, Computer Vision, Natural Language Processing, Audio Processing, Satellite image Processing, Quantum Computing, Quantum Machine learning.

EDUCATION

Gujarat Technological University

Ahmedabad, Gujarat

M.E (Computer Engineering)

2013-2015

Hemchandracharya University

Mehsana, Gujarat

B.E (Information Technology)

2007-2011

EXPERIENCE

IBM India Pvt. Ltd

Ahmedabad, Gujarat

Sr.AWS AI ML Solution Architect (Chief Data Scientist)

2022(May)-Current

- Design and/or delivery of solutions, assets, and content.
- Apply methodology and governance around project development.
- Document and articulate clear understanding of customer/partner success criteria.
- Apply critical thinking, technical knowledge, customer/partner insights to solve problems with industry methodologies, and frameworks.
- Collaborate with IBM and AWS specialists to design and build complex enterprise solutions with foundation of Red Hat Open Shift, AWS Infrastructure, and IBM Software technology.
- Standardize solutions in accordance with the AWS Well-Architected Framework across all pillars, including operational excellence, security, performance efficiency, cost optimization, and reliability.
- Define, lead, and execute architecture design workshops and white-boarding sessions to build implementation plans.
- Develop deep relationships with key customers through solution integration to drive long-term IBM and AWS adoption.
- Team well with our key IBM & Red Hat business units, and strategic partners to support our partnership.
- Consult as a subject matter expert on our IBM/AWS technology and services portfolio.
- Author use cases, reference architectures, blog posts, and other field and external content.
- Work in sandbox environments to demonstrate IBM Hybrid Cloud Capabilities with AWS.

- Interact with customers, develop use-cases on ML/AI, and use the same in solution integration on existing business.
- Selecting features, building, and optimizing classifiers using machine learning techniques
- Data mining using state-of-the-art methods and Handling large-scale data using ETL: processing tools such as Pyspark and Data Bricks.
- Extending company's data with third party sources of information when needed
- Enhancing data collection procedures to include information that is relevant for building analytic systems
- Processing, cleansing, and verifying the integrity of data used for analysis
- Doing ad-hoc analysis and presenting results in a transparent manner
- Creating automated anomaly detection systems and constant tracking of its performance
- Research and devise innovative statistical models for data analysis
- Work as the lead data strategist, identifying and integrating new datasets that can be leveraged through our product capabilities and work closely with the engineering team to strategize and execute the development of data products.
- Collaborate with product design and engineering to develop an understanding of needs and Quality.
- Analyze data for trends and patterns and Interpret data with a clear objective in mind.
- Provide deep learning and machine learning-based solutions to Solve various Real-world problems.

Projects: Recommendation System, Chatbot Architecture Designing, Image Classification based project

- Research and devise innovative statistical models for data analysis.
- Work as the lead data strategist, identifying and integrating new datasets that can be leveraged through our product capabilities and work closely with the engineering team to strategize and execute the development of data products.
- Collaborate with product design and engineering to develop an understanding of needs and Quality.
- Formulating, suggesting, and managing data-driven projects which are geared at furthering the business's interests.
- Analyse data for trends and patterns and Interpret data with a clear objective in mind.
- Cross-validating models to ensure their generalizability.
- Keep current with technical and industry developments in dairy sector.
- Execute analytical experiments methodically to help solve various problems and make a true impact across dairy domains industries.
- Monitoring the performance of Junior Data Scientists and providing them with practical guidance, as needed.
- Selecting and Employing advance deep learning and machine-learning based solutions to Solve varies Real world problem.

Projects: Milk Adulteration, Calf Behaviour Analysis, Calf health prediction, Animal Lameness detection etc.

Softweb Solutions (Avnet Company Fortune 500)

Ahmedabad, Gujarat

Data Scientist

2018(Jan)-2019(Sep)

- Hands-on experience in selecting features, building, and optimizing classifiers using machine-learning techniques.
- Enhancing data collection procedures to include information that is relevant for building analytic systems
- Processing, cleansing, and verifying the integrity of data used for analysis.
- Doing ad-hoc analysis and presenting results in a clear manner.
- Creating anomaly detection systems and constant tracking of its performance.
- Having strong knowledge in Statistics, Feature Engineering, Model Selection, Model Evaluation, and Feature Scaling to build accurate machine learning.
- Experience in tuning and optimize ML/DL model for performance improvement.
- Hands on experience working with live projects on different machine learning techniques.
- Having strong problem-solving capabilities.
- Working with most demand industrial technology Framework like pandas, NumPy, matplotlib, nltk(NLP), keras(Deep Learning, tensor flow scikit learn(Machine learning), opencv etc.

Projects: Image Classifications, Facial Expression Recognitions, Recommendation system, Predictive Modelling, Regression Analysis

Solaris Publication

Ahmedabad, Gujarat

Jr. Data Scientist

2017(Jan)-2018(Jan)

- Requirement gathering from the Business Team.
- Increased training data using the Image augmentation technique.
- Used Transfer learning concept to achieve reasonable accuracy.
- Implemented Deep learning image classification model.
- Validated Model on thousands of images.

Projects: Image Classification, Seasonality Trends Analysis, Recommendation System

Silver oak College of Engineering and Technology

Ahmedabad, Gujarat

Researcher and Assistant Professor

2015(Dec)-2016(Dec)

- Teaching a student Academic Syllabus with practical labs.
- Guide students on their master thesis on Data Mining and Deep learning.
- Initiated to work with Student on the new research project with new technology.
- Guide a student to their Academic project.

L.D College of Engineering

Ahmedabad, Gujarat

TECHNICAL SKILLS

- ✓ **Programming Languages:** Python, R
- ✓ **Databases:** PostgreSQL, Redshift, MongoDB
- ✓ **Big Data Frameworks:** Hadoop streaming, DataBricks, Kafka
- ✓ **Libraries:** pandas, NumPy, sklearn, scipy, keras, nltk, spacy, matplotlib, pyserial, tensorflow, pytorch, pyspark
- ✓ **Machine Learning:** Regression, Random forest, boosted decision trees, naive Bayes, SVM, k- means clustering, SVD/PCA, Anomaly Detection, Deep Learning algorithms, Time Series Analysis, Sequence to Sequence learning, Meta learning
- ✓ **Deep learning:** NN, RNN, LSTM, GRU, CNN, Transfer Learning, Optimization of Algorithm, Regularization, Hyperparameter Tuning, Batch Normalization
 - Object Detection Algorithm : YOLOv5, SSD, RetinaNet, R-CNN, Faster R-CNN, Efficient Det
 - Semantic Segmentation Algorithms : Unet, FCN, SegNet, DeepLab, DeepLabv3 Unet++
 - Generative Adversial Networks : GAN, Style GAN, DC GAN, SRGAN, ESRGAN
 - Instance Segmentation : Mask R-CNN, CenterMask
 - Vision Transformer, Autoencoder, Capsule Net, RBF, Deep Belief Network, Variance Auto Encoder, Wavelet CNN etc.
- ✓ **Natural Language Processing:** Encoder Decoder Model (BERT, ALBERT etc.), NER, Language Modelling etc.
 - Frameworks: NLTK, Spacy, Gensim, Transformers, torchtext etc.
- ✓ **Statistics:** Descriptive Statistics, Inference Statistics, Bayesian Inference

ACHIEVEMENT

- Technical Book Reviewer with Manning Publication, Packt Publication, Apress Publications.
 - Achieved Star Club Member of Github contains more than 7k [star](#).
 - Certified Quantum Computing Practitioner from Qubit by Qubit(Thecodeschool) MIT and Oxford University join Program.
 - IBM Certified Quantum Computing and Quantum Machine learning Practitioner.
 - Published more than 20+ Research papers with Publications such as IEEE etc.
 - Book Author of Hands-on Time Series Analytics with Python - [Book](#)
 - Coursera Certified Specialization in Tensorflow in Practice, Deep learning AI, Advance Data Science with IBM
- Link: <https://www.linkedin.com/in/ashishpatel2604/>
- Three-time potential Kernel Winner on World best data science platform Kaggle(Google Data Science Platform)

PERSONAL

Citizenship: Indian

Natural Languages: English, Hindi, Gujarati

Interests: traveling, photography, distance running, choir, fantasy baseball

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