Prashant Bhat

Stanford Machine Learning Certified Data Scientist. 16+ years of Experience in Engineering Organizations. 10 + years in Artificial Intelligence, Machine Learning, Data Science, Computer Vision, Python, TensorFlow, Keras, CNN, AWS ML, Azure, Google ML

- Current Designation: COE Head Machine Learning, Artificial Intelligence ,Data Science
- Current Company: TATA
- Current Location: Pune
- Pref. Location: Pune,United Kingdom (UK),Sweden
- Functional Area: IT Software - Application Programming / Maintenance
- Role: Head/VP/GM-Technology(IT)/CTO
- Industry: IT-Software/Software Services
- Marital Status: Married
- Total Experience: 16 Year(s) 0 Month(s)
- Notice Period: 1 Month
- Highest Degree: Ph.D/Doctorate [Machine Learning]

- Key Skills: artificial intelligence,machine learning,data science,computer vision,object detection,object classification,deep learning,python,opencv,nlp,statistical modeling,algorithm development,data scientist,neural networks,object tracking,aws ml,MLDeployment

Verified : Phone Number | Email - id

ID: 6d29d1a2c42b4083a0d7b2a8d9188b7dLast Active: Jul-Sep 2020Last Modified: Jul-Sep 2020

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Work Experience | Education | IT Skills | Projects | Work Authorization

Summary

Heading ML, AI COE. Developing ML/AI Team To Deployment of ML/AI Solutions. Stanford Machine Learning Certified Data Scientist. Overall 16+ years of Experience in Engineering Organizations. 10+ years in Machine Learning, Artificial Intelligence, Data Science, Data Analysis, Neural Network, CNN, Deep Learning, Computer Vision and ML Technology Road Map & Strategic Development, Machine Learning Solutions with Python, TensorFlow, Keras R, AWS ML, AWS SageMaker, Azure ML, Stat Modeling.

Leading the Artificial Intelligence, Machine Learning Projects, Strategic Development for ML with Advance Software Development Team.

Pursuing a Ph.D. in Machin Learning and Artificial Intelligence

Having B1/B2 US Visa and UK Visa

Work Experience

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TATA as COE Head Machine Learning, Artificial Intelligence ,Data Science

Nov 2019 to Till Date

Heading The Machine Learning / Artificial Intelligence COE (AI COE Head) for ML, AI, Data Science Solutions Deployment in Automotive, Aerospace, Manufacturing, Heavy Industry Domains.

Building ML/AI Practice from Scratch, Delivering the Machine Learning and Artificial Intelligence Solutions. Predictive Maintenance AI solutions.

Win 3 Business in Two Month with Strategic ML, AI POC?s Delivery.

Deployment of AI, ML Solution as an MVP in Production Environment Help in Reducing Scrap and Controlling the Controllers.

Computer Vision QA System for Defect Detection, Production Line Machines Failure Prediction.

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Whirlpool India as Senior Manager - Machine Learning, Artificial Intelligence, Data Science

Jul 2018 to Nov 2019

-Sr. Manager / Sr. Lead Engineer for Data Science, Artificial Intelligence, Machine Learning for Computer Vision Enable Products.

-Lead and Develop the ML/AI Solutions with Deep Learning for Refrigerator, CTO and WallOven for Better Consumer Experience.

-Product in Field Testing. Deep Learning to SNPE Android Boards. AWS AMI and AWS SageMaker and Docker Image.

-Benchmarking of MobileNetSSD, Fast R-CNN, Faster R-CNN, Mask R-CNN Machine Learning Algorithms for Object Detection, Classification.

-Deploy the ML Algorithms on the Qualcomm Hardware and Validate the Performance on the Product using Python, TensorFlow, R, OpenCV.

-Successfully Deploy one AI Powered Product in the Field. Setup End to End Machine Learning Pipeline,

-Implemented Data Science, Deep Learning, ML Algorithms, and Data Engineering Technology Road Map and Production Implementation With 8-AI Engineers at India location and 3 - AI Engineers at the USA.

-Patent (In Progress) AI Data Engineering Tool for Syn Data Generation.

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Ulatrons Software Solutions - Partner of MSC Software as Senior Manager Data Science ,Machine Learning and Artificial Intelligence

May 2014 to Jul 2018

-Senior Manager for Data Science, Data Engineering, Data Analysis and statistical machine learning solutions to business problems- Develop the Software Products using Machine Learning for MSC and Dassault Systems'. Delivering ML/DL Solution. Lead 8 Data Scientist.

-Applying Data science and Data Analysis for Artificial Intelligence using machine learning, Feature Engineering, and Time-Series data analysis.

-Supervised and unsupervised learning using a variety of Machine learning algorithms and Advanced Statistical Modeling, Gradient Boosting.

-Deep Learning - Artificial Neural Network (ANN), Convolutional Neural Network (CNN), RNN with TensorFlow, Theano, Keras, SciKit, Numpy.

-Image Processing, Image Classification, Predictive Modeling.

-Banking NPA / Loan Defaulter Prediction using Machine Learning.

-Experience in Artificial Intelligence, Internet of Thing - IoT, Robotics

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MSC Software Corporation as Project Manager (Predictive Simulation Development)

May 2010 to May 2014

-Project Manager for Software & Test Development, Data Science and Data Analysis. Develop Software Products using Machine Learning.

-Develop the Predictive Analysis Method and Test for analysis env.

-Image Classification, ANN, CNN, K-means, SVM, Decision Tree

-Data Analysis, Machine Learning, Artificial Intelligence.

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Honeywell Technology Solution Lab as Senior Product Engineer

Mar 2008 to May 2010

Developing the product using Simulation Analysis and Data Analysis using Excel and R programming

- Polynomial equation model builds in excel for predicting the continues values, use this model to predict the performance of the product.

- Statics Modeling for probability and impact analysis to identify which design feature is contributing the product performance.

-Two Patents on VNT design, reduce hysteresis losses by~50%.

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GE JFWTC as Design Engineer

Jan 2006 to Mar 2008

Statistical Analysis using SixSigma Tools.

-Linear Regression, Polynomial Regression, Multi Variable.

- Crystal Ball, Minitab Impact Analysis, outliers.

- Responsible for Design Analysis Review Team, for Change reviews.

- Analysis for Load Bank Duct, Save 3 Months Field Rework.

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Mahindra & Mahindra (KNVL) as Analysis Engineer

Jun 2004 to Jan 2006

-On-Site Design Engineer for "Scorpio SUV Engine" and "Champion Vehicle Engine" Design and Development.

-Design, Development, Analysis, and Testing of engine components.

- Hand Calculation for Components like Connecting Rod, Piston, Valves and Alternator/AC Brackets.

- Valve Train and Engine Component Structural FEA and Multibody Dynamics Validation (MBD).

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Education

- UG: B.Tech/B.E. (Mechanical) from Shivaji University, Kolhapur in 2004

- PG: M.Tech (Mechanical) from Pune University in 2016
- Post PG: Ph.D/Doctorate (Machine Learning) from JJTU, University. in 2021
- Other Qualifications/Certifications/Programs:

Stanford University Data Science and Machine Learning

SixSigma Green Belt

Microsoft Data Science Certification.

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IT Skills

Skill Name	Version	Last Used	Experience
Neural networks	latest	2020	8 Year(s) 6 Month(s)
Convolutional Neural Network CNN	latest	2020	8 Year(s) 3 Month(s)
Deep learning	latest	2020	8 Year(s) 3 Month(s)
Computer Vision	latest	2020	11 Year(s) 10 Month(s)
TensorFlow	2.0	2020	9 Year(s) 0 Month(s)
Artificial intelligence	latest	2020	10 Year(s) 10 Month(s)
MACHINE LEARNING	latest	2020	10 Year(s) 10 Month(s)
OBJECT DETECTION	latest	2020	10 Year(s) 0 Month(s)
Python	3.7	2020	11 Year(s) 8 Month(s)
R	latest	2020	10 Year(s) 10 Month(s)

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Languages Known

Language	Proficiency	Read	Write	Speak
English	Expert			

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Projects

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Project Title: Predictive Maintenance for RUL on Mfg Lines - JLR/TASLClient: TASL

- Nature of Employment: Full Time
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- Role: Solution Architect
- Duration: Nov 2019 - Till Date
- Onsite / Offsite: Onsite
- Team Size: 6

Skill Used: Machine Learning, Artificial Intelligence, Data Science, Predictive Maintenance, Data EngineeringRole Description: Head of the Project, Responsible for Deployment, Machine Learning, Artificial Intelligence, Predictive Maintenance, AI Architecture, Machine Learning Deployment in Production, Data Scientist, Data EngineeringProject Details: - Deploy Preventive Maintenance Machine Learning for 6 Machine to Im-prove OEE, -Predict RUL of Machine Components and Machines - RUL for 24 hours and 30 days window, current accuracy is 68% - Data science implementation, ML framework with a rule engine

- Machine Learning Deployment in Production

- Data Scientist, Data Engineering, Feature Engineering, Data Indigestion, Artificial Intellegence

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Project Title: Surface Defect Detection Machine Learning Computer Vision-BSClient: BS

- Nature of Employment: Full Time
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- Role: Sr. Project Leader
- Duration: Nov 2019 - Till Date
- Onsite / Offsite: Onsite
- Team Size: 3

Skill Used: Machine Learning, Artificial Intelligence, Data Science, Computer Vision, Object Detection, Data EngineeringRole Description: Head of the Project, Responsible for Deployment, Machine Learning, Artificial Intelligence, Predictive Maintenance, AI Architecture, Machine Learning Deployment in Production, Data Scientist, Data Engineering, Data ArgumentationsProject Details: - Deploy Machine Learning Object Detection for Product Surface Defect Identification on the Product Line,

- Real-time Artificial Intelligence for Defect Identification, FasterRCNN

- Data Science with 73% Accuracy with One Month Data, ML Framework

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Project Title: Object Tracking Deep LearningClient: Whirlpool Corporation

- Nature of Employment: Full Time
- Project Location: Chicago
- Role: Solution Architect
- Duration: Apr 2019 - Sep 2019
- Onsite / Offsite: Onsite
- Team Size: 3

Skill Used: Machine Learning, Artificial Intelligence, Object Detection, Object Tracking, Deep learning, Computer VisionRole Description: Define and Develop a new algorithm for Object tracking and Object Count based on the Object DetectionProject Details: Object Tracking for inventory management, Artificial Intelligence, Machine Learning

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Project Title: Computer Vision Based Object Detection Machine Learning SolutionsClient: Whirlpool

- Nature of Employment: Full Time
- Project Location: Chicago and Pune
- Role: Sr. Project Leader
- Duration: Jul 2018 - Till Date
- Onsite / Offsite: Offsite
- Team Size: 6

Skill Used: Data Science, Machine Learning, Artificial Intelligence, Computer Vision, Deep Learning, CNN, Open CV, Python, TensorFlow.Role Description: Lead the Machine Learning Technical Decisions, Algorithm Setup Like MobileNetSSD, Fast RCNN, Faster RCNN and MaskRCNN, Computer Vision Technology road map, Data Science and Data Engineering, Develop tools to make Machine Learning faster.Project Details: Define and Own the Complete ML deployment strategy with Deep Learning from Data Engineering to Flash on Hardware Board

- Improve the accuracy from 5.6% to 63.2% for Faster R-CNN by effec-tive data engineering methodology and hyper parameters of ML model.

- Develop Patented Synthetic Data Generation Software, which is 96% faster than current market solutions.

- Develop 4 Software Tools to Speedup by 3X Data Generation for ML.

- Benchmarking with MobileNet SSD, Fast RC-NN, Faster R-CNN, Mask R-CNN for Object Detection.

- Deploy the best ML Model on the Android Based Board for Local Running of the ML Model on the Product.

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Project Title: Computer Vision-Based Classification for Wall Oven.Client: Whirlpool

- Nature of Employment: Full Time
- Project Location: Benton Harbor, Chicago
- Role: Sr. Project Leader
- Duration: Jul 2018 - Mar 2019
- Onsite / Offsite: Onsite
- Team Size: 7

Skill Used: Data Science, Machine Learning, Deep Learning, Faster RCNN, Tensorflow, Fast RCNN, MobileNetSSDRole Description: Lead the Machine Learning and Artificial Intelligence project, Define and Execute Data Science, Machine Learning Strategies, Find best Deep Learning Solutions with Computer Vision, Technology Road MapProject Details: -Own Entire End to End Artificial Intelligence Project, Define the Machine Learning Technology Road Map, Strategical Execution.

- Identifying the Object Despite Many Variation of the Same Food Items, Need to Train the Machine Learning Model for more Variation, Train for Misclassifications.

- Setup End to End AWS SageMaker Environment for Scalable Solution for Running the DOES of ML Model and Tuning the Same.

- Drive Decision Based Design to Get Better Output from Artificial Intelli-gence Product.

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Project Title: Customer Segmentation for Sales Lead and ForecastingClient: MSC Software

- Nature of Employment: Full Time
- Project Location: Pune
- Role: Sr. Project Leader
- Duration: Apr 2017 - Mar 2018
- Onsite / Offsite: Offsite
- Team Size: 4

Skill Used: Data Science, Linear Regression, Logistic Regression, Machine Learning, Artificial Intelligence, Data Analysis, ClusteringRole Description: Head of the Software and QA division, Implemented the Machine Learning Pipeline in GUI based software for Autonomous Vehicle, Automobile Business, Aerospace Business.Project Details: -From server data, want to predict the future product usage/demand.

-Also, Clustering based on customer tastes and Multi-Class Classifica-tion for which module or product customer will go for it (Lead for Sales)

-Algorithms: K-Means, Polynomial Regression, Logistic Regression.

-Using this Data Science , Machine Learning model 20% increase in sales lead rate, product poisoning becomes more robust for sales.

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Project Title: Banking NPA / Loan Defaulter Prediction ML System.Client: NKGSB Co-op Bank Ltd, Bajaj

- o Nature of Employment: Full Time
- o Project Location: Pune
- o Role: Sr. Project Leader
- o Duration: Apr 2017 - Jun 2018
- o Onsite / Offsite: Offsite
- o Team Size: 22

Skill Used: Deep Learning, Machine Learning, Artificial Intelligence, Algorithm Development, Python, TensorFlowProject Details: -Prediction of the Probability of Becoming Loan Defaulters from Existing Customers.

-Build the DL/ ML Model for Existing Customer and New Customer Prediction models using a different algorithm with Xgboost.

-Deep Learning Model for handling the bank data and for live prediction.

-POC own -Total Project Value for 6 months is 5.0Cr.

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Project Title: Driver Identification and Alert System (Asleep at the Wheel)Client: Volvo

- o Nature of Employment: Full Time
- o Project Location: Pune
- o Role: Sr. Project Leader
- o Duration: Jan 2017 - May 2018
- o Onsite / Offsite: Offsite
- o Team Size: 10

Skill Used: Data Science, Machine Learning, Artificial Intelligence, Deep Learning, Object Detection, Neural Networks.Project Details: -To Identify dreamy/asleep at wheel driving style behavior or pattern, design the system to prevent this using ML, Deep Learning, and CNN

-According to the National Sleep Foundations sleep in America poll, 60% of adult drivers driven a vehicle while feeling drowsy.

-Based on vehicle data includes vehicle speed, engine rpm, gear ratio, steering wheel angle, accelerator and brake pedal position, role angle etc., vehicle camera images, daylight saving info, driving time etc.

-Used deep learning algorithm ANN for identifying the driving patterns. Images used for CNN to identify the driver status.

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Project Title: Product Fail Cluster, Customer Sentiment Analysis.Client: MSC Software

- Nature of Employment: Full Time
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- Duration: May 2013 - May 2014
- Onsite / Offsite: Offsite
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Project Details: -Using the past 25 years of software defect data, create defect clustering to predict the most impacted feature or variable.

-Data cleaning, Text Mining, Natural Language Processing, NLTK, K- means, KNN.

-Sentimental analysis to find the confidence in the product helps the sup-port team to win AMCs

-Deep Learning, CNN, Text and Number Identification

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Project Title: Predictive Analysis using Image ClassificationClient: Volvo, VW

- Nature of Employment: Full Time
- Project Location: Pune / USA
- Role: Project Leader
- Duration: Aug 2010 - May 2012
- Onsite / Offsite: Offsite
- Team Size: 22

Skill Used: Machine Learning, Artificial Intelligence, Deep Learning, Computer Vision, Python, Neural Networks, object detection, R, Software Implementation, Release Management, Software DevelopmentProject Details: - Identify the failure and type of the failure by image classification, we had images data generated by the software, build the clusters.

- CNN learn from the data images since there is a variety of images given by software release by release.

- Clustering the images as per type of which kind of preprimary issues.
- Reduce defect escape ratio for software reduces by 34%.