NIPUN BHALLA

IBM CERTIFIED DATA SCIENCE PROFESSIONAL & AWS MACHINE LEARNING SPECIALIST

Phone:	Email:	Website:	Location:
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• Data scientist with 3 years of relevant, and 6+ years of overall industry experience in IT and programming
• Currently translating business & technical requirements from data science & machine learning problems to software applications
• Experienced in Big Data Analytics and Predictive Analysis, as well in system architecture design including ingestion pipelines and advanced data processing with an understanding of NoSQL and distributed computing tools

TECHNICAL LANDSCAPE

Proficient	▪ Python 3 ▪ SciKit Learn & SciPy ▪ PySpark ▪ Keras	▪ Pandas ▪ NumPy ▪ MatplotLib/Seaborn ▪ SQL - Postgres	▪ Apache Airflow ▪ Django ▪ Flask ▪ REST Web Services	▪ Cassandra ▪ AWS Glue ▪ QuickSight ▪ AWS Lambda

Exposure with: C++, TensorFlow 2, Numba, MySQL, MS SQL Server, Docker, Git, Agile Methodology, Statistical analysis, AWS(Sagemaker, EC2, S3, Kinesis, Athena & RDS)

WORK EXPERIENCE

Data Scientist OCT 2021 – PRESENT
Ericsson Inc. | Noida

- Handling development of model to predict NPS (Net Promoters Score) score for upcoming week/month recommended proactive steps to improve KPI's

Data Scientist (Software Engineer) JAN 2021 – SEP 2021
Eye Care Leaders (Part of Global Growth) | Noida

- Lead the development of myCare Analytics Cloud, also formulated and integrated Forecasting, and Anomaly Detection models along with designing creative visualizations for the same
- Leading the dev of a model for *predicting clinical events* using **LSTM**, the accuracy of the current model is 71%
- Directing the development of feedback collection and **sentiment analysis** server-less web service

Associate Software Engineer - Data Scientist MAR 2019 – DEC 2020
Eye Care Leaders (Part of ELI Research India Pvt. Ltd) | Noida
Project: MyCare Analytics

- Collaborated with SMEs in the field of ophthalmology for feature selection in ML models; also presented models to managers and non-technical stakeholders
- Defined 14 hypotheses from the common datasets across ECL's products and expanded development for 3 based on already ongoing research in the public domain: - Predicting Clinical Events via RNN, Modeling of Glaucoma Progression, Predicting Visual Acuity in Patients Treated for Neovascular Age-Related Macular Degeneration
- Formulated Patient Growth Forecasting model which correctly forecasted patient growth

Beyond the role: Devised web-based CICD and automation suite using Django for Analytics' client onboarding workflow while accounting for customizations; suite reduced time for client onboarding process from 8-12 hours of manual work down to 5 minutes

Project: Data Migration

- Engineered ETL pipelines using SQL and Python for moving data between different EMR/EHR systems with data sanitization and validation checkpoints resulting in > 1% of total record migration failure

- Developed data validation framework in using pandas for automatic validation which included critical field error detection and could validate records at a speed in the range of 3,000 to 10,000 records/second
- Spearheaded demo sessions and conducted training of the product to the implementation team and stakeholders

Data Sciences Intern SEP 2018 – FEB 2019
Eye Care Leaders (Part of ELI Research India Pvt. Ltd) | Noida
Project: MyCare Analytics

- Under minimal supervision carried out an exploratory data analysis and suggested a model for forecasting progression of Age-related Macular Degeneration
- Tuned a patient classification model (Random Forest algorithm) and identified the gaps resulting in an accuracy gain from 82% to 89%
- Developed a tool using Python to dump data at the speed of ~13,000 records/second, more than double the speed of data ingestion in database which reduced training times and re-synced databases

ADDITIONAL EXPERIENCE

Summer Trainee JUN 2017 – JUL 2017
Weapons and Electronics Systems Engineering Establishment (WESEE)
Indian Navy, Ministry of Defence, Govt. of India | New Delhi

Co-Founder and CTO FEB 2016 – MAY 2017
Giftomise.com // E-Commerce Start-up | New Delhi

Head – Technical SEP 2015 – JUL 2016
YaarBazaar.com (YaarBazaar Pvt. Ltd.) // E-Commerce Start-up | New Delhi

SCIENTIFIC PUBLICATIONS

Smart Reflect: An Application Nonspecific Passive Information Display Device for Public and Private Spaces
International Journal for Research in Applied Science & Engineering Technology

CERTIFICATIONS

Python Data Science Professional Certificate **IBM**
AWS Certified Machine Learning - Specialty (MLS) **Amazon**
Essential Math for Machine Learning **Microsoft**

EDUCATION

Post Graduate Diploma in Applied Statistics (perusing) 2021 – Present
Indira Gandhi National Open University, New Delhi

Bachelors in Technology (Electronics and Communication) *Batch:* 2014 – 2018
Guru Gobind Singh Indraprastha University, Delhi

PROJECTS

REVERSE SNAKE - Classic snake but the snake is A.I. and the human places the food. Currently the A.I. runs on a X64 machine but end goal is to make it run on embedded hardware.Built using Deep Q-network(DQN) with TensorFlow 2

IMAGE SIMILARITY WEB API- Dockerized web api when given 2 images, computes the image similarity between them. Uses VGG-19 model for generating the feature vector.

SMART MIRROR - Biometrically authenticated display device with availability and attendance system for departments and organizations; engineered using Raspberry Pi 3 using Python 3, Node.js, and MySQL

DATA DIODE USING RASPBERRY PI FOR SECURE DATA TRANSFER
Constructed using Raspberry Pi and modified RJ-45 connector with software written in Python; was cheaper by a factor of 20 when compared with commercially available solutions

AWARDS AND ACHIEVEMENTS

- Achieved 2nd Position at University Major Project Competition, Department of ECE for Smart Mirror
- Organizer of **TEDx BPIT***, 2017-2018*
- Founding Member and elected Webmaster of the student branch of **IEEE BPIT**
- President of **Entrepreneurship-Cell**, BPIT, 2017-2018
- Member of the Organizing Committee and Core team for College fests from 2016-2018