PARIKSHIT SUNIL DESHMUKH

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SUMMARY

Machine Learning Engineer with ***3 years*** of experience in all phases of software development with Agile methodology. Proficient at development in Java, Python, SQL, REST API Web Services, JavaScript with hands-on experience on Machine Learning, Deep Learning (libraries: TensorFlow, Keras, Caffe, PyTorch, SciKit learn, SciPy, Numpy, Pandas) and Predictive Data Analysis.

EDUCATION

University at Buffalo, State University of New York Aug 2017-Feb 2019

- MS in Computer Science & Engineering (Focus: AI and Machine Learning)
- **Courses**: Machine Learning, Statistical Data Mining, Algorithms, Computer Security, Distributed Systems

Nagpur University, India July 2009 – Aug 2013

- Bachelors of Engineering

TECHNICAL SKILLS

- **Languages:** JAVA, MySQL, Python [Numpy, Scikit, SciPy, Pandas, Keras, TensorFlow, PyTorch], R, jQuery, JUnit
- **Databases**: MySQL, SQL Server 2008/2012, PostgreSQL, PL/SQL, JDBC, Hibernate
- **Data Science:** Machine Learning, Deep Learning [Keras, TensorFlow, PyTorch, Caffe], Predictive Modelling, Statistical Data Mining, Data Analysis, LDA-QDA, Seaborn, ggplot2, KNN, Random Forest, Amazon Web Services S3(cloud)
- **Tools**: Git, Maven, Pycharm, Intellij Idea, Eclipse, Docker, R Studio, PGAdmin, Visual studio
- **OS**: Unix,Linux, Mac OS
- **Other**: REST Web Services API,JIRA, Scrum, Agile and Waterfall methodology

WORK EXPERIENCE

Cognizant Technology Solutions *(Programmer Analyst)* **Jan 2014 – Oct 2016**

- Architected and developed insurance applications in JAVA, Struts2 MVC, JavaScript and MySQL for integrating and managing the insured customers and potential customers data in MySQL database
- Developed **REST API** with JAX-RS using Jersey for providing web services for clients to consume the Insurers data.
- Proposed an automated remedy ticket classification and worked with team implement multi-class classification to intuitively classify the issue tickets raised by the users and allocate it to the respective operator handling that particular category of issues which reduced manual efforts by **30-40%.** (Tech: **Naive Bayes Classifier, NLP, tf-idf, Scikit learn, pandas**)
- Developed a junk filter for IT support team to cull out irrelevant emails using bag of words and tf-idf transformer of Scikit learn. Used **Support Vector Machine** and **Naive Bayes** classifier for prediction. Received appreciation from client for the initiative.
- Wrote complex SQL queries for performing various CRUD operations, And, functions and procedures in PL/SQL for data processing and flow for the applications using JDBC API
- Followed **Agile** Methodology and used JIRA as Scrum management tool leading team of 3 new hires.
- **Automated** Geographic refresh process and optimized the PL/SQL procedure's run time by **20%**
- Migrated the huddle meeting task tracker board from Ms Excel to web-application which saved **30- 40 %** time for huddle meetings

The Advisory Board Company *(Data Analyst)* **Oct 2016 – Jun 2017**

- Designed algorithms and configurations in Java for processing patients' data based on the business requirement and loading it into PostgreSQL database; Utilized machine learning algorithms to perform exploratory data analysis in python.
- Automated the process of Quality Assurance Workbook generation by processing the incoming data, filtering it and populating the QA excel workbook, and sending mail with summary to the business analysts (**efforts and cost cutting by 20%**)

PROJECTS

- **Project In proposal:** Evaluating performance of the current Keystroke dynamics authentication system for preventing intrusion attacks based on user's typing traits by incorporating machine learning to classify the intruder's typing pattern.
- **Glasses Detection using Deep Convolutional Neural Network(Python, Deep CNN, PyTorch, TensorFlow):**
  - Implemented Deep CNN to determine if person in image is wearing glasses or not using TensorFlow and PyTorch
  - Used DCNN to train the model and SGD for hyperparameters tuning with Dropout regularizer for improving performance.
- **Predicting Airlines delay and the best airport to fly out from (Python, Naive Bayes, Logistic Regression, AWS S3):**
  - Performed EDA to extract relevant features and Built predictive model on pickled data using Naive Bayes classifier and Logistic Regression on top of Gaussian Basis functions and validated using Early Stopping method. Tested the model to predict city's best airport with minimum flight delay.
- **Learning to rank on query-URL pair for Information Retrieval (Python, Linear Regression, SGD):**
  - Performed predictive analysis on Microsoft LETOR 4.0 dataset using Closed form solution and Stochastic Gradient Descent algorithms to gain the minimum RMSE of 0.5.
  - Incorporated Gaussian Basis function to deal with nonlinear data and, Early Stopping for the most optimal solution.
- **Handwritten digit classification(Convolutional Neural Network, TensorFlow, Caffe, Adam Optimizer)**: Built and trained a Logistic Regression and Convolutional Neural Network model for classifying handwritten digits and achieved accuracy of **99%** with CNN model. Also, implemented Backpropagation for 3 layer neural net with Softmax and Tanh activation function.
- Using Google Speech API to convert real time or recorded audio of speaker to determine mood of the speaker.

- Contributor to ‘Enlight’ github repository for algorithms and tutorials on Machine Learning through projects.