Shabarish Pilkun Ravi

Availability: 2 months

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: https://www.linkedin.com/in/shabarish-pilkun-ravi/

Medium: https://medium.com/@shabarish033

: https://github.com/Shabarish033 Mobility: **Open International / National**

"Experienced Engineer with a passion for Applied Mathematics, Data Engineering and Machine Learning looking for an interesting job opportunity to learn and apply my skills"

Summary:

- Specialized in Applied Mathematics, Computational Mechanics and Machine Learning
- Certified in Big data, Machine Learning, Deep Learning and Artificial Intelligence
- **Tableau Certified Data Scientist**
- **AWS certified Solutions Architect – Associate**
- Curious Learner, Proactive Leader, Team Motivator and a Detail Focussed Planner

Software's and Programming Languages:

Programming Languages:	Python, Matlab, C++
Database Language:	PostgreSQL, MySQL, MongoDB, Hbase
Machine Learning:	Numpy, OpenCV, Pandas, Scikit-learn, TensorFlow
Big data:	Hadoop, Apache Airflow, Kafka, Spark, Hive, Pig, MapReduce, Docker, Kubernetes, Tableau.
General Software:	MS Office, MS Excel, Google G Suite
Operating Systems:	Windows, Linux, Unix

Languages:

English:	Fluent (IELTS 7.5/9)
French:	Advanced – B2
Hindi:	Fluent

Interests:

Interests:	Theatre, Cooking

Industrial Experience:

LESIA Observatoire de Paris (Research Engineer – Software Development)

November 2020 – Present **Location:** Paris, France

- Terabytes of data consisting of light curve luminosity values, Imagettes of stars and Spectroscopy data of stars.
- Building and Testing various algorithms that evaluate the spectroscopic properties of stars.
- Responsible for building data pipelines on Apache Airflow.
- Responsible for building the web application on Django.
- Continuous Integration and Continuous Deployment on GitLab, deployment of code on Docker.

Softwares Used: *Python, Pyspark, PostgreSQL, Docker, Git, Confluence, Apache Airflow, Django, html, css, Bootstrap.*

KPMG Virtual Internship, (Intern)

July 2020 – September 2020

- The dataset consists of the customer and transactions data of a medium size bikes & cycling accessories organization
- The goal is to perform exploratory analysis to identify the client purchasing patterns and categorize the customers
- Perform data cleaning, data preprocessing to extract insights
- Build clustering algorithms for classification and identify the areas to save costs/reduce expenses.

Softwares Used: *Python (Pandas, Scikit-Learn, matplotlib), MS Excel, MySQL, Tableau*

AIRBUS Operations SAS, (Intern - IACSAF - AirFrame Fatigue Solutions, Toulouse)

Feb 2019 – Aug 2019 **Location:** Toulouse, France

- Understanding Fatigue Spectra Generation and Spectra Sensitivity for loads and Range
- Build Predictive Surrogate models (Regression) using Airframe Fatigue Data for the loads monitoring applications
- Building Machine Learning Clustering Models to further reduce the computational cost and compare the accuracy of predictions
- Development of Graphic User Interface using Tkinter and interactive data visualization using Bokeh
- Part of Agile team with multi-functional team members

Softwares Used: *Python (Pandas, scikit-learn, Numpy, TensorFlow, Tkinter, Bokeh), MySql, ISAMI*

Safran Engineering Services India Pvt. Ltd, (Engineer 2 – In Service Support Department)

2014 – 2017 **Location:** Bengaluru, India

- Real time Predictive Structural Health Monitoring for A350-900 XWB aircraft
- Lead the Daily repairs and Hand Stress calculation activities for the Single Aisle Aircrafts
- Focal point between client and engineering teams, translating customer requirements into engineering tasks
- Project Management, Distribution and Verification of the tasks for the Subcontractors

Softwares Used: *Catia V5, ISAMI, Abaqus, MS Office*

Education:

School: *École Centrale de Nantes, France* **Location:** Nantes, France

Degree: Masters in **Computational Mechanics [BAC + 5]**

2017 – 2019

- The main theme of the Masters was Applied Mathematics, Numerical Simulation and Coding

Subjects Covered:

♦Model Reduction ♦ Greedy Algorithms ♦Tensor Algebra ♦ Structural Mechanics ♦ Fluid Mechanics ♦ Finite Element Methods ♦ Linear / Non-Linear Algebra ♦ Uncertainty Quantification ♦ Numerical Simulation (Structural and Fluid) ♦ Statistical Modelling.

School: *Visveshvaraya Technological University* **Location:** Bengaluru, India

Degree: Bachelors in **Aeronautical Engineering**

2010 – 2014

- The main theme of the course was Aircraft Structures, Aerodynamics, Flight vehicle design and Finite Element Methods
- First Class with Distinction, 83.7%

Projects:

Project: *Credit Card Fraud detection.*

Duration : 1 Month

- This project was part of kaggle competition, thus the preprocessed dataset was used
- The challenge was to extract insights from an **imbalanced dataset** (98.6% Non-Fraudulent, 1.4% Fraudulent transactions)
- An exploratory analysis performed to get insights on the credit card fraud detection data
- Analyzed the performance of machine learning Classification algorithms for fraudulent transaction predictions

https://github.com/Shabarish033/Credit_Card_Fraud_Detection/blob/master/KaggleCodeNotebook.ipynb

Project: *Motion Detection Application.*

Duration : 1 week

- The application can be implemented on a laptop webcam and is also tested to work on OV9782 USB camera
- It is a security camera application that is capable of detecting motion in an environment
- The user is alerted via email with the video of motion attached, in case there is a motion in the environment

https://github.com/Shabarish033/MotionDetectionApp

Project: *Image Recognition Application.*

Duration : 1 Month

- The application is based on Convolutional Neural Network
- The application has a user interface, hence the user can directly use the application instead of modifying a code
- An application capable of identifying images based on the png image files provided

https://github.com/Shabarish033/Image-Recognition-Application

Project: *Building identification using satellite map data.*

Duration : 1 Month

- Using Mask Regional Convolutional Neural Network to identify the building contours from a satellite image data.
- The Goal is to identify the total area occupied by the buildings.

https://github.com/Shabarish033/MapDataBuildingIdentification

Project: *Model Reduction using Proper Orthogonal Decomposition (POD) and Proper Generalized Decomposition (PGD).*

Duration: 1 month

- Used Deformation Analysis to understand the Optimization approach using POD and PGD methods
- Implemented the techniques using Matlab

Blog and Certifications (Badges):

- **Medium:** https://shabarish033.medium.com/
- **Credly :** https://www.credly.com/users/shabarish-pilkun-ravi/badges

Volunteering:

Volunteer Teacher – **Teach For India** **Aug 2015 – Jul 2017**

- Volunteering during the weekends to teach under-privileged children.
- Subjects taught: Mathematics, Science and Theatre
- Instilled Self Confidence and taught students to get over Stage Fear through theatre
- Prepared students them for 'Times of India – Teach for India' "*dramebazz*" Theatre competition

aws CERTIFIED

Shabarish PILKUN RAVI

has successfully completed the AWS Certification
requirements and has achieved their:

AWS Certified Solutions Architect - Associate

Issue Date
May 04, 2021

Expiration Date
May 04, 2024

Maureen Lonergan
Director, Training and Certification

Validation Number L3MNYSNJK2RQQJG5
Validate at: http://aws.amazon.com/verification