

EDUCATION

Great Lakes Institute of Management

PGP-Data Science and Engineering 2020

National Institute of Technology Warangal.

M.Tech in Manufacturing Engineering. 2014

Gayatri vidya Parishad College of Engineering.

B.Tech, Mechanical Engineering 2010

TECHNICAL SKILLS:

Design Tools: Pro-E, Catia, CAD/CAM

Strong Subjects: Casting, welding, Forming, Sheet metal operations, Machining Operations, Unconventional Machining Operations, Metrology

Machine Learning: supervised and unsupervised learning, clustering algorithms

Tools: Pandas, Numpy, Matplotlib, Seaborn, scikit-learn,

Analytical Tools: Tableau

Programming Languages: Python, SQL

Software Environment: Jupyter Notebook, MS Excel, MySQL

Professional Experience:

ACE Engineering College :

Assistant Professor

Predictive wear analysis: 2019–2020

- The data is collected on **pin on disc device(wearing experiment)** and the data is collected at various loading conditions, processed and manipulated using **numpy, pandas** libraries
- Performed **Exploratory Data analysis(EDA)** on the data using **matplotlib, seaborn** libraries
- Identified the different parameters like **load, velocity, composition** that affects the wearing of the work piece
- Machine learning models like **KNN, Linear regression, Gradient descent boosting Decision tree** was applied
- It was found that **KNN** is suitable algorithm which is predicting the values with an RMSE **0.15**

Prediction of Casting Defects: 2018–2019

- The data is collected on **centrifugal casting machine** at various conditions, processed and manipulated using **numpy, pandas** libraries
- Performed **Exploratory Data analysis(EDA)** on the data using **matplotlib, seaborn** libraries
- Identified the different critical parameters like **temperature, speed of the mould, composition** that affects the quality of the product
- Machine learning models like **KNN, Logistic regression** was applied
- It was found that **Logistic regression** is suitable algorithm which is predicting the correct defect with an accuracy of **92%**

Failure Analysis of the sheet during punching: 2016 –2017

- The experiment was conducted on the punching machine and the strain values are calculated using strain gauges, processed and manipulated using **numpy, pandas** libraries
- **Exploratory Data analysis(EDA)** was performed on the data to observe the distribution of the data using **matplotlib, seaborn** libraries
- Performed feature **transformation techniques** to reduce the **skewness**
- Identified the critical features like **tensile stress, compressive stress, shear stress** that leads to the failure of the product
- Machine learning models like **Random forest, Gradient descent boosting decision tree** was applied

- It was found that **GBDT** is suitable algorithm which is predicting the correct stress values with an accuracy of **94%**

AITAM College :
Assistant Professor

Prediction of welding defects using ML:

2016 –2017

- The data was collected from international welding research library , processed and manipulated using **numpy, pandas** libraries
- **Exploratory Data analysis(EDA)** was performed on the data to observe the distribution of the data using **matplotlib, seaborn** libraries
- Performed feature **transformation techniques** to reduce the **skewness**
- Identified the critical features like **spatter loss, over convexity, over concavity etc** that leads to the damage to the surface finish
- Machine learning models like **Random forest, Gradient descent boosting decision tree** was applied
- It was found that **GBDT** is suitable algorithm which is predicting the welding defects with an accuracy of **92%**