Muhammad Usama Navid

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EDUCATION

UNIVERSITY OF ENGINEERING AND TECHNOLOGY LAHORE
BSc Mechanical Engineering
Expected Jul 2021 | Lahore, PK
Dean's List (Spring 2018)
CGPA: 3.4/4.0

PUNJAB GROUP OF COLLEGES
Grad. May 2017 | Multan, PK
FSc: 88 % • Matric: 94 %

SKILLS

Digital Manufacturing (CAD & CAE)
Project Management • Data Science
Machine Learning • Deep Learning

TOOLS
SolidWorks • Fusion 360 • AutoCAD
Abaqus • Matlab / Octaves • MS Office
Minitab • LaTeX• Python • HTML • Linux
Numpy • Pandas • Matplotlib • Keras
Scikit Learn • TensorFlow 2.0

SOFT SKILLS
Positive Attitude • Self Motivation
Storytelling • Creativity • Collaboration

EXPERIENCE

- Team Lead AI
  Google Developers Student Club UET
- Microsoft Learn Student Ambassador
- Autodesk Student Ambassador
- Member UET Science Society

HONORS & AWARDS

BERTELSMANN TECHNOLOGY SCHOLAR
Data Analyst Nanodegree
Udacity 2019

ACHIEVER'S SCHOLARSHIP
STEP by PGC 2017

LINKS

LinkedIn:// concaption
Github:// concaption
Website: UsamaNavid.com
Blog: Blog.UsamaNavid.com

PROJECTS

WEAR IN TOTAL KNEE REPLACEMENT | and effect of Knee implant size after simulation in Abaqus

- Designed a Knee implant model in SolidWorks after literature review.
- Used Abaqus to do static and dynamic analysis to find out wear in using empirical relations available in literature.

3D MODELING AND DESIGN VISUALIZATIONS | Designs Using Autodesk Fusion 360 and Sketchbook Pro in Tandem

- Designed a shoe model using Fusion's form modeling.
- Modeled and rendered a Jeep and a Car in fusion 360.

LIGHTWEIGHT QUAD-COPTER DESIGN | in Fusion 360

- Designed a light weight Quad-copter in fusion 360 using surface, form and path work-spaces.
- Done the aerodynamic and force analysis of the quad-copter to lift camera and other sensors.

UNCERTAINTY QUANTIFICATION | in the Efficiency of Mangla Dam

- Used Numpy, Pandas and Matplotlib libraries in Python to pre-process, analyze and visualize the data.
- Found the uncertainty in efficiency by creating cumulative distribution functions.

ARDUINO CAR | Bluetooth Controlled Object Detector

- Assembled and programmed the electronics to make a Bluetooth controlled car using Arduino, actuators, sensors and drivers.

PEDESTRIAN TRUSSED BRIDGE | Review and Analysis

- A case study about pedestrian trussed bridge that included its modeling and static analysis.
- Compared the results obtained through different static analysis techniques.

STATE OF THE ART MACHINE LEARNING | Car Detection, Face Detection and Binary Classification

- Applied state of the art machine learning techniques for Face Detection, Car detection and Binary clasification problems.
- Built custom Deep Learning architectures in Tensorflow.

ONLINE COURSES

Data Science Specialization	IBM
Introduction to IOT	UC Irvine
Digital Manufacturing and Design	University at Buffalo
Intro to Digital Manufacturing	Autodesk
Introduction to Generative Design	Autodesk
Deep Learning Specialization	Deeplearning.ai