Shashank Mewada

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Summary:

- Having 7 years of relevant experience in CAD and CAE domain.
- A self-starter having practical approach combined with problem solving, software development and 3D CAD visualisation skills.
- Looking forward to apply Machine Learning concepts in Mechanical Engineering. I have successfully completed several courses in Machine Learning and Deep Learning.

Technical Skills:

Programming Languages:	Python, C++, C#, VB.NET, AutoLISP, VBA, SQL.
Machine Learning Libraries:	TensorFlow, PyTorch, NumPy, Pandas, Scikit-learn, NetworkX.
Software:	ANSYS, CATIA, SolidWorks, AutoCAD, Meshmixer, FreeCAD, MS Excel, GitHub.
Platforms and IDE:	Windows, Linux and Visual Studio.

Professional Experience:

Senior Design Engineer - CFD / FEA / CAD Automation

AMP Engineering Design Ventures LLP - (July 2016 - present)

- Lead a team of four CAD developers, to fulfill the project requirements.
- Analyse data, develop solutions for complex problems, and provide technical interpretation and recommendations.
- Perform code reviews and maintain high standards of software quality within the team.
- Interact with Clients to understand the Project Statement of Requirement (SOR), evaluate the scope of work and documenting the work plan and provide Project estimates.
- Automate several manual and repetitive tasks with an aim to optimise the current workflow on the basis of time and cost.

Key Projects

1. AutoCAD Addins - AMP_QADim, AMP_Autodim, AMP_Layout.
2. Thermal, Fluid and Structural Analysis of Incinerator Chamber.
3. Surface Generation from large 3D Scan datasets.
4. 3D Visualization of Medical DICOM datasets.
5. AMP CAD Translator.

Design Engineer – CAD Automation

AMP Engineering Design Ventures LLP - (July 2013 - July 2016)

- Develop custom CAD Process routines.
- Model CAD Parts and Assemblies.

Key Projects:

1. AutoCAD Drawing Database Creation.
2. SolidWorks File Compression and Regeneration.
3. 3D Tyre Modelling from 2D drawings.

Spend Analyst

GEP Worldwide - (May 2013 - July 2013)

- Data processing, Spend classification based on Client provided Taxonomy and Report Generation.

Patent:

Method for Lossless Compression and Regeneration of Digital Design Data.
Publication No.: WO2017163106A1/ US20190073799A1
https://patents.google.com/patent/US20190073799A1/en
Status - Pending.

Continuing Education/ Professional Development:

1. Practical Deep Learning for Coders (fast.ai, 2020)

- This course covered topics like Deep Learning for image classification, sentiment analysis, and structured data models, with emphasis on creating state-of-the-art models with few lines of code using Python, PyTorch and fastai library.

2. Deep Learning Specialization (deeplearning.ai, Coursera Specialization, 2020)

- This five course specialisation covered Deep Learning topics like Convolutional Neural Networks, Hyperparameter tuning, Regularization, Optimization, RNN, LSTM using Python and TensorFlow.

3. Applied Data Science with Python Specialization (University of Michigan, Coursera Specialization, 2020)

- This five course specialisation covered topics Machine Learning like data processing, visualisation, network analysis, text manipulation using various Python libraries like Scikit-learn, NumPy, Pandas, Matplotlib, NLTK, NetworkX.

Education:

2012 University of Mumbai, Bachelor of Engineering – Mechanical

- This course was a 4 year degree course with subjects like Finite Element Analysis, Thermodynamics, Fluid Mechanics, Heat & Mass Transfer, Refrigeration & Air Conditioning, Thermal Engineering, Machine Design, Mechanical Vibrations, Strength of Materials, Material Sciences, Mathematics.

CAD Software Training:

ANSYS Fluent 17.0, CATIA V5 R18, SolidWorks 2014.

Interest:

3D Deep Learning, Computer Vision, Flow Simulation, Chess.