

## Contact

Pune, India  
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[www.kaggle.com/yogeshkulkarni](https://www.kaggle.com/yogeshkulkarni) (Portfolio)  
[github.com/yogeshhk](https://github.com/yogeshhk) (Portfolio)  
[scholar.google.co.in/citations](https://scholar.google.co.in/citations) (Portfolio)

## Top Skills

ChatGPT  
Coaching  
Sketchnotes

## Languages

Hindi (Professional Working)  
Marathi (Native or Bilingual)  
English (Professional Working)

## Certifications

Rasa Developer Certificate  
Neo4j Ninja (Graph Database)  
Neo4j Graph Data Science Certification  
Google Developer Expert (Machine Learning)

## Honors-Awards

Google Developer Expert (Machine Learning)  
Nvidia Deep Learning Institute Certified Instructor  
1st prize winning entry at FIRE 2017 IRLed track for Catchphrase Extractions  
Member, Mensa India  
University Topper , Mechanical Engineering (Sandwich)

## Publications

# Yogesh Haribhau Kulkarni

AI Coach | PhD in Geometric Modeling | Google Developer Expert (Machine Learning) | Top Writer 3x (Medium)  
Pune, Maharashtra, India

## Summary

More than 20 years in Computer-aided-Design/Engineering research, software development and management. Got Bachelors, Masters and Doctoral degrees in Mechanical Engineering (specialization: Geometric Modeling Algorithms). Currently doing Coaching in fields such as Data Science, Artificial Intelligence Machine-Deep Learning (ML/DL) and Natural Language Processing (NLP).

## Experience

### Self-employed

AI Coach  
April 2023 - Present (2 months)  
Pune, Maharashtra, India

Coaching Domains: Data Science, Artificial Intelligence Machine-Deep Learning (ML/DL) and Natural Language Processing (NLP).

### Coaching Modes:

- Paid: for commercial, established companies. Typical activities could be, planning AI roadmap, hiring, mentoring teams, being a sounding-board, advisory in general. Within AI (Artificial Intelligence), topics could be Machine/Deep Learning (ML), Natural Language Processing (NLP), and intersection/applications of these with other domains.
- Free: for non-commercial entities like students, non-funded startups, and likes. For individuals, apart from AI-ML-NLP, topics/queries could be non-technical also, such as mid-career transition, career in Data Science and likes.

Own Product Development: ChatGPT like chatbot interface to custom data (text, tables, graphs, etc.) <https://github.com/yogeshhk/SaaSGPT>

Research: MidcurveNN: Encoder-Decoder based neural network for Geometric Dimension Reduction <https://github.com/yogeshhk/MidcurveNN>

Computation of Midsurface by  
Feature-based Simplification-  
Abstraction-Decomposition

Extracting information from reports  
using Regular Expressions Library in  
Python

Sentiment Analysis of Twitter Posts  
on Chennai Floods using Python

Detection of Catchphrases and  
Precedence in Legal Documents

Development of algorithms for  
generating connected midsurfaces  
using feature information in thin-  
walled parts

## Patents

Representing documents using  
document keys

Social:

- Technical/non-technical writing/blogging <https://medium.com/>

@yogeshharibhaukulkarni

- Board-of-Studies: CoEP, Symbiosis, MIT

- Talks, Meetups, Teaching, on invite-basis

- Nominations: Google Developer Expert (Machine Learning), Neo4j Ninja  
(Data Science), Rasa Hero (Conversational AI)

## Icertis

Principal Architect - CTO Office

June 2019 - March 2023 (3 years 10 months)

Pune Area, India

Used Machine/Deep Learning and Natural Language Processing for Legal  
documents processing.

## COEP Technological University

Adjunct Professor (Co-Teaching/Visiting), Mechanical/Manufacturing  
Engineering

August 2002 - March 2023 (20 years 8 months)

Pune Area, India

Courses taught:

- CAD/CAM Lab for BTech Mech Eng batches (2 semesters)

- Industrial Management for BTech Mech Eng (1 Semester)

- Machine Learning for Mechanical as well as Production Engineering.

- Mesh Modeling for MTech Design Eng.

- Numerical Methods and Computer Programming for Third Year BTech Mech  
Eng.

- Modeling of Synthetic Curves (Bezier, B-spline) for Final Year BTech Mech  
Eng.

- 3D Printing and Mesh Modeling for Final Year BTech Mech Eng.

- Autodesk Inventor Customization for Second Year BTech.

- Kinematics for Robotics for MTech Design Eng.

## Freelance

Data Scientist : Consultant-Instructor

October 2016 - May 2019 (2 years 8 months)

Pune Area, India

Training topics: Python, Machine Learning, Deep Learning and Natural  
Language Processing, Tensorflow.

Research topic: Application of Machine/Deep Learning to Geometric  
Algorithms

Recognition: Google Developer Expert (GDE) Machine Learning, Rasa Hero Conversational AI (Chatbots)

Projects/PoCs done:

1. Lawyer Assistant: Mining court judgments, topics, doc similarity and summarization.
2. Pharmacovigilance: Clinical Medical Healthcare Pharma drug-AE (Adverse Event) detection
3. Smart Home Automation: Predictive Analytics, Internet Of Things (IoT)
4. ChatBot: FAQ chat bot for GST (Goods and Services Tax) related queries.

Programming : Python ecosystem with libraries such as Pandas, Scikit Learn, Nltk, Gensim, Spacy, Rasa-NLU/Core, Tensorflow, Pytorch, AWS Boto3, Apache Kafka, etc.

Training modules: details at <https://github.com/yogeshhk/TeachingDataScience/blob/master/README.md>

Online Courses:

- Experfy: Introduction to Artificial Intelligence, Learn what exactly AI is, what are its different facets.

<https://www.experfy.com/training/courses/introduction-to-artificial-intelligence>

- Experfy: Unsupervised Learning: Dimensionality Reduction and Representation, Overcoming the Curse of Dimensionality

<https://www.experfy.com/training/courses/unsupervised-learning-dimensionality-reduction-and-representation>

- Experfy: Hands-on Project - Data Preparation, Modeling & Visualization

<https://www.experfy.com/training/courses/hands-on-project-data-preparation-modeling-visualization>

- INE: Introduction to Machine Learning

<https://my.ine.com/DataScience/courses/2eaf6b98/introduction-to-machine-learning>

Nvidia DLI (Deep Learning Institute) Certified Instructor.

Recognition(s):

- 1st prize winning entry at FIRE 2017 IRLed track for Catchphrase Extractions

- 8th ranked entry at FIRE 2017 IRLed track for Precedence Retrieval
- KD Nuggets Silver Badge!! for article on Text Mining
- Analytics Vidhya Blogathon Prize winner for 3 times

### Autodesk India Pvt. Ltd.

Software Development Manager, Site Manager

December 2006 - July 2013 (6 years 8 months)

Site Manager of Pune Development team. Responsible for R&D projects in Consumer domain. (Started with Hanna Technologies which was then taken over by Autodesk)

#### Projects:

1. Plastics : [labs.autodesk.com/technologies/inventor\\_plastic\\_features](http://labs.autodesk.com/technologies/inventor_plastic_features)
2. Direct Modeling : <http://www.inventorfusion.com/>
3. 123D Desktop: <http://www.123dapp.com/123d>

Domain : Solid/Feature Modeling

Programming : C, C++,C#

### Siemens PLM Software

Software Engineer - Advanced

December 1998 - November 2006 (8 years)

Geometric->SDRC->EDS->UGS (now Siemens).

- Unigraphics with ownership of "Part Navigator" (Tech Lead).
- I-DEAS Modeling project "Shell" (Project Manager-Tech Lead).
- I-DEAS Simulation project "Midsurface" (Sr Developer).

Domain : Geometry, Topology

Programming : C-C++

### Sutra Systems

Project Manager

December 1997 - November 1998 (1 year)

Pune Area, India, Tokyo Japan

Leading a team for projects by Japanese Clients. Worked in Tokyo for couple of months at the client site.

Jamco Corporation, Tokyo, Japan. (Project Manager-Sr Dev.)

Stress Analysis Group with responsibility of developing a

Force Distribution program for Joints at Panels in structures used in Galleys of Aircraft.

Domain: Mech. Engg. algorithms  
Programming : C++

Sutra Systems India Pvt. Ltd,Pune,India. (Proj Mger-Sr Dev.)  
Engineering Services Division with the responsibility of designing and implementing simulation of Cryogenic process for a Japanese client.

Domain: Mech. Engg. algorithms  
Programming : Matlab Simulink C

Parametric Technology Corporation  
Software Engineer  
October 1996 - May 1997 (8 months)

- R & D group of Mechanical Applications division with primary task of developing software solutions for mechanical assemblies in their flagship product Pro/Engineer.

- GUI group of PDM division with task of building front end to the Oracle database in Pro/Intralink.

Domain: Solid Modeling, Network File Systems  
Programming : C

Tata Motors  
Intern Engineer  
January 1994 - May 1994 (5 months)

- Coordinated and Organized Design and Manufacturing of Testbed for simulating the effect of pre-stretching a boring bar on the dimensional accuracy of the cam-boring operation.

- Assisted in the development of software for inverse kinematics of a spot welding robot.

Tata Motors  
Intern Engineer

June 1992 - December 1992 (7 months)

Designed sheet metal dies and fixtures for components.

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## Education

College of Engineering Pune

Doctor of Philosophy (Ph.D.), Mechanical Engineering · (2012 - 2017)

Symbiosis Institute of Management Studies

PGDBM, Post Graduate Diploma in Business Management (Part-Time) · (2007 - 2008)

Harvard University Extension School

Certificate in Management (Part Time), Design Patterns · (1997 - 1997)

Kansas State University

MS, Mechanical Engineering · (1994 - 1996)

College of Engineering Pune

BE Mech SW, Mechanical Engg · (1990 - 1994)