



# KARTIK CHINCHOLIKAR

## BIO

A Machine Learner who will get from point A to B using Google search and Large Language Models

## TOOLS:

### Python Libraries:

numpy, tensorflow, pytorch, pytorch-geometric, scikit-learn, matplotlib, pandas, conda & Vector Databases

### Other Technical Tools:

AWS Studio Lab, MATLAB, R, Java, Android Studio, AutoCAD, Ansys

### Adobe Creative Suite & More:

Photoshop, Premier Pro, Audacity, Canva, Prompt Designing for Generative AI

### Productivity:

Zotero, Github, Notion, Obsidian, Discord

## SKILLS:

- Strong fundamentals in Linear Algebra, Probability and Calculus.
- Ability to synthesise and communicate complex technical concepts clearly and concisely.

## EDUCATION:

### BE Mechanical Engineering

Maharashtra Institute of Technology,  
Pune, India  
First Class [2012-2016]

## REACH ME AT:

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## EXPERIENCE

### Equitech Futures [ 2022-2023 ]

- Research Associate

Worked with researchers from Oncology Department at the Kenyatta National Hospital on Breast Cancer patient data. We highlighted the risk factors which make patients receiving chemotherapy more prone to nausea and vomiting (CINV). Despite a small dataset size, the risk factors found corroborated with existing literature. I made a novel contribution to the *Inclusion Criteria* via a data cleaning procedure which makes better use of domain knowledge.

- Teaching Assistant

I assisted students with their assignments on:

Python Foundations, Bayesian Modelling, and Data Visualization.

I also had many insightful discussions on the *feasibility* of AI applications to various domains.

### Machine Learning Storyteller [ 2020 - ... ]

- A Study of the Manifold Hypothesis

I compiled everything which excited me about this [in a video](#). The video featured twice on popular Youtube channel "[Machine Learning Street Talk](#)".

- Simulations in Statistical Learning Theory

[Ran toy simulations](#) to understand the need to use domain knowledge to do feature engineering and also to choose a hypothesis class which is not too flexible, but flexible enough. Use of animation enabled easy exploration of topics such as the i.i.d assumption, PAC Learning, Feasibility of Learning, bias-complexity trade off, No-free-lunch theorem and the VC Dimension.

[The resulting video](#) was acknowledged by [Professor Shai Ben David](#), who is a Professor of Theoretical Computer Science at University of Waterloo.

- Visualizing mapping between Neural Network Layers

Visualized the [non-linear mapping](#) between the input layer and hidden layer as the simple NN gets trained on the XOR toy dataset.

### Badminton School [ 2018-2022 ]

- Sports Analytics

Made an annotation tool to manually collect the data of the badminton player to be analyzed.

Derived [insights](#) from the data to find common "Patterns of Play". These can be exploited during a match.

- Advertising and Content Creation

Started a [Youtube channel](#) teaching the basics of Badminton in Hindi, garnering 34k Subscribers.

### SportShack [ 2016-2017 ]

- Android Development

Build an Android app which enabled runners to share screenshots with friends.

- Gamification

Designed a rating system to motivate runners to be consistent.