Kartik Chincholikar

+91 9922821694 | kartik.niszoig@gmail.com | Website | Pune, India

EXPERIENCE

YouTube January 2020 – Present
Educational Content Creation (@Kartikc) Pune, India

- **Highlights**: Manifold Hypothesis, Group Equivariant Neural Networks, Statistical Learning Theory
- Gained recognition from Professors and leading AI Researchers from **Meta AI Research, the University of Waterloo, the University of Amsterdam, the University of Chicago and the University of Oxford**

FLAME University January 2024 – Present
Software Developer, Research Associate Pune, IN

- Successfully **digitized text from old Sanskrit manuscripts** using an automated workflow
- Built the automated workflow consisting of **Algorithms, AI Models, and Humans** working in collaboration
- Designed and developed a custom **Data Annotation Tool** with support for multiple Indic languages

Equitech Futures March 2022 – April 2023
Associate Researcher, Teaching Assistant Chicago, IL (Remote)

- **Identified risk factors** for chemotherapy-induced nausea and vomiting (CINV) in breast cancer patients
- Collaborated with domain experts and **enabled efficient distribution of expensive antiemetic medicines**
- Assisted students with data cleaning, EDA, data visualization and Bayesian modelling
- Evaluated the feasibility of AI solutions for various domain-specific problems

Badminton School September 2017 – January 2021
Founder, Coach Pune, India

- Taught the basics of Badminton on YouTube, reaching **2.5 million viewers** and garnering **34,000 Subscribers**
- Built an annotation tool, and derived insights **from sequential data of 40+ Badminton players**

PROJECTS

Workflow for Digitizing Handwritten Manuscripts

- Fine-tuned AI models for the tasks: **Image2Image**(UNet), **Image2Text**(CNN-BiLSTM), **Text2Text**(llama, ByT5)
- Designed and developed a **Data Annotation Tool**(Vue, Flask) to enable data collection and Human-in-the-loop continuous improvement.
- Used Domain Knowledge to perform effective Data Collection, Data Cleaning, and Evaluation

Group Equivariant Neural Networks

- Improved upon Patchcore-inspection (Industrial Anomaly Detection) using an Equivariant CNN to **encode Images into a Vector Database**, and then used **FAISS (Facebook AI Similarity Search)** to find anomalies
- Visualized and animated a forward pass through an Equivariant neural network architecture.

EDUCATION

Maharashtra Institute of Technology 2012 – 2016
BE Mechanical Engineering, First Class Savitribai Phule Pune University, India

- **Coursework**: Operations Research, Industrial Automation, Manufacturing, Materials Science, Numerical Methods

SKILLS

Machine Learning Stack : numpy, matplotlib, pandas, Scikit-Learn, PyTorch, Tensorflow, Hugging Face, fastapi
WebDev Stack : HTML, CSS, React, Vue, Github Actions
Tools : GCP, Google Storage, Vertex AI, Vision API, DocAI, GitHub, Notion, Adobe Photoshop, Davinci Resolve, Canva