

# Utkarsh Kumar Sahu

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## EDUCATION

- Indian Institute Of Technology (BHU)** Varanasi, India  
*Bachelor of Technology; CGPA: 8.17* Nov 2020 - June 2024

## SKILLS SUMMARY

- Hard Skills** DSA, DL, Transformers/LLM's, OpenCV, Time Series, MERN Stack, Docker/Kubernetes, Django/FastAPI
- Technical Proficiencies** C, C++, Python, SQL, JavaScript, Matlab, OS, DBMS, CN, OOPS, System Design-LLD.
- Tools** Jupyter Notebook, VS Code(IDE), Github, Tableau, MS Excel, MySQL, Canva, Figma, Postman, Minikube.
- Soft Skills** Leadership, Teamwork, Time Management, Flexibility, Coaching/Mentoring, Motivated and Work Ethic.

## EXPERIENCE

- Data Scientist at Publicis Sapient** May 2023 – July 2023
  - Developed **clustering** and mathematical (**Pulp**) models for optimizing facility locations in warehouse management.
  - Optimize the objective function, solve **inventory and route optimization** problems for the **delivery chain by 3.1%**
  - Deployed code using Docker and **increased efficiency by 2.1%**, used service pods on an AWS Kubernetes cluster.
  - Exposure:** *Operation research, Business study, Mathematical models (Pulp), Kubernetes, Streamlit.* [Link](#)
- Deep Learning Engineer at TMLC** Dec 2022 - Feb 2023
  - Worked on detecting **YOLO models**, i.e. yolov5-v7-v8 models, **increased accuracy by 7.8%** using FPN networks.
  - Detected birds & calculated the **interval**, created dashboards on streamlit, **improved inference** speed by **80fps**.
  - Worked with **100+ CCTV footage** and deployed model on an **AWS EC2** instance to calculate the metrics.
  - Exposure:** *Object-Detection-Segmentation, YOLO-v7/8, Tensorflow, AWS, Roboflow, Streamlit.* [Link](#)
- Machine Learning Engineer at Univ.AI** Oct 2021 - Dec 2021
  - Worked on **scraping** using **Octoparse** and generating a phone sales dataset with a **MAPE score 0.029**.
  - Implemented Statistical, LSTM, ARIMA and XGBoost model achieving an **accuracy rate of 97.31%**
  - Worked with the events team and organise the **ML hackathon for 250+ students** and administered leaderboard.
  - Exposure:** *Time series, ARIMA, Web Scraping, XGBoost, Octoparse, Event Management.* [Link](#)
- Artificial Intelligence Trainer at Scale AI** Feb 2024 - May 2024
  - Developing RLHF** (Reward Learning from Human Feedback) strategies to enhance the effectiveness of chatbots.
  - Implementing quality control practices to ensure **accurate chatbot responses**, improving the user experience.
  - Ensuring the **reliability of AI models** by maintaining high standards in task execution by promoting precision.
  - Exposure:** *Large Language Models (LLM), Prompt Engineering, Parallel Algorithms*

## PROJECTS

- Memor.AI Ed-Tech Platform** Jan 2023 - March 2023
  - Built an Ed-Tech platform for **active retention learning** using Flutter, Django, and Transformers. [Apk](#)
  - Developed spaced repetition, BERT-based generator, summarizer, similarity, extracting QnA model as **features**.
  - Deployed **Django** backend on **Heroku** to fetch API requests on our app, created a Deck of our solution. [Deck](#)
  - Exposure:** *BERT, OpenAI, Django, RestAPI, Flutter, Heroku, UI/UX, Figma, Product management* [Demo](#).
- Synthetic Serendipity - Enigmatic Anime VAE-GAN** Sept 2022 - Oct 2022
  - Leveraged Variational Autoencoder and **GANS** to generate unique **anime-style** character faces.
  - Utilized **PyTorch** to implement Deep Convolution GAN and trained on a diverse dataset of anime images.
  - Resulted in character portraits with potential gaming and digital art applications and deployed using **FastAPI**.
  - Exposure:** *Variational Autoencoder (VAE), Generative Adversarial Network (GAN), FastAPI, Pytorch, Jinja.* [Link](#)

## HONORS AND ACHIEVEMENTS

- Auto Code Generator using GPT-3 Neo:** Demonstrated the working of Auto Code Generator using **GPT-3 Neo**, which generates code from snippets or commands. Built with the **transformer** model having **1.3 billion** parameters. [Link](#)
- Multiverse of Languages — Intro to Python:** Delivered a 2.5-hour live Python tutorial covering 30 key topics, hosted by Google Developer Students Club ([GDSC](#)). The video has over **3000+ views** on **YouTube**. [Link](#)
- Research Paper Implementation - Missing Data Sequence:** Designed a deep imputation model using a sequence-to-sequence architecture in Tensorflow to recover missing data sequences and implemented a **sliding window algorithm** for training samples. [Link](#)

## POSITION OF RESPONSIBILITY

- Technical Events Head, COPS(IG)** Varanasi, India  
*Conducted various hackathons, workshops and events for freshers.* June 2022 - June 2023
- Moderator, Cntrl Shift Intelligence** Varanasi, India  
*Organised and served as a mentor for a dynamic 3-day hackathon hosted on Kaggle.* April 2022

## EXTRA-CURRICULAR ACTIVITIES

- Solved **400+** questions on the Interview Bit platform and **1500+** questions on various coding platforms. [Profile](#)
- Verbal Mention** in the All India Political Party Meet (**AIPPM**) committee at IIT BHU MUN. [Link](#)