

Sanket Magodia

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📄 sanketmagodia.info

EDUCATION

Binghamton University, State University of New York

Master of Science in Computer Science, Concentration in A.I., (CGPA 3.53/4.00)

Aug 2022 – May 2024

University of Mumbai, Mumbai, India

Bachelor of Engineering in Computer Engineering (CGPA 3.39/4.00)

Aug 2017 – Jun 2021

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript, Dart, SQL (Postgres), HTML/CSS

Frameworks: Pytorch, Tensorflow, React, Django, Flask, FastAPI, Flutter

Developer Tools: Docker, AWS EC2, OpenAI, Hugging Face, Git, GitHub Actions

Libraries: Scikit-Learn, spaCy, NLTK, Pandas, NumPy, Selenium, Matplotlib

EXPERIENCE

Machine Learning Research Assistant

May 2023 – Present

State University of New York at Binghamton | Binghamton, New York

- Researched GANs, WGANs, and DCGANs through extensive literature review and paper analysis
- Presented pioneering research paper on leveraging GANs for imputing missing data, demonstrating expertise in applying novel techniques to real-world problems
- Leading the development of a full-stack client-server application utilizing FastAPI, Docker, and MongoDB
- Innovating with LLM technology, specifically Nous Hermes 2 LLM model, to create a speech-based application for recording daily finances, providing future predictions, and personalized financial advice

Software Engineer (Machine Learning)

Nov 2021 – May 2022

WonderBiz Technologies Private Limited | Mumbai, India

- Enacted Named entity recognition model, OCR, and Adaboost regressor to reduce price estimation process by 70%
- Enhanced efficacy of custom Mask-RCNN model involving extraction of lines and diagrams from P&ID by 15%
- Deployed Object Detection model on Raspberry Pi to automate casting defects detection, achieving 78% accuracy
- Tailored a custom Optical Character Recognition Architecture using neural networks with 93% extraction accuracy

Data Analyst Intern

Aug 2020 – Nov 2021

Globalshala Private Limited | Mumbai, India

- Employed Decision Tree, K-means Clustering, and Apriori algorithms to discover underperforming ads
- Developed dashboards in Power BI to monitor key performance indicators (KPIs) and providing actionable insights
- Applied time-series analysis to optimize ad performance, leading to substantial cost savings of over \$10000
- Utilized Heatmaps and Geospatial Visualization techniques to present findings, enhancing data comprehension

PROJECTS

Finance Manager using Local Large Language Model (L.L.M) | Python, FastAPI, LangChain, MongoDB

- Developed a financial management system using pretrained LLM and Langchain to process requests via speech
- Implemented regression analysis with Sklearn to predict future spending trends based on user's data
- Enacted Nous Hermes 2 LLM with LangChain operations to extract data, enabling users to receive tailored advice
- Designed a server-client architecture integrating with MongoDB and delivering personalized spending insights

A.I Doorbell | Python, Tensorflow, YOLOv5, OpenCV, Flask API, Git

- Innovated a doorbell service for embedded devices using real-time object detection achieving 30-40% cost reduction
- Crafted a versatile phone notification system for swift responses across edge devices, slashing false alarms by 50%

PUBLICATIONS

Raj.Shah, Sanket.Magodia, Yashpal.Zala & Kanchan Dabre(2021). FAKE NEWS PREDICTION USING TF-IDF VECTORIZER. International Journal of Research and Analytical Reviews (IJRAR), Volume 8, Issue 2 <https://ijrar.org/papers/IJRAR21B1646.pdf>