JAY JHAVERI

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EDUCATION

Masters of Computer Science **Sept 2022 – June 2024 (Expected)**
University of California, San Diego (UCSD) CGPA: 3.97/ 4
Relevant Courses: Deep Learning, Scalable ML Systems, Recommender Systems, Computer Vision, Adv NLP - LLMs

Bachelor Of Engineering (Computer Engineering) **August 2018 – July 2022**
Vivekanand Education Society's Institute of Technology (VESIT) CGPA: 9.013/ 10
Relevant Courses: Machine Learning, Software Development, Big Data (Hadoop), Algorithms, Cloud Computing

INTERNSHIP EXPERIENCE

Machine Learning & Cyber Security Intern, **Legendary Entertainment** **June 2023 – Dec 2023**
- Reduced false positive anomaly detection time by 10x by Streamlining employee online activity monitoring using Splunk Dashboard, Python scripting and integration with Azure MSGraph API.
- Contributed to integrating a FIDO Alliance product into the SSO workflow, enhancing security and user experience.
- Assisted the lead SOC analyst in foundational work for the Shared Learning Intelligence Platform (SLIP) to improve anomaly detection in security cloud brokers in collaboration with Sky High Security.

Full Stack Development Intern, **Makos Infotech** **June 2021 – July 2021**
- Developed Server-side rendering for their main website (Jobaskit.com) utilizing JQuery, PHP, and MySQL, which targets automating the On-campus placement process for various colleges.
- Managed existing and created relational databases using MySQL Workbench and deployed them on AWS.
- Co-pitched the online job placement portal, Jobaskit, to 3 University professors alongside the founder.

Data Analyst Intern, **Leadingindia.ai** **May 2020 – June 2020**
- Worked with a team of four to build a vaccine prediction model on the H1N1 and seasonal flu vaccines to accurately predict the trends of the public acceptance rate (41%) of the COVID-19 vaccine.
- Research Paper was published in Springer & I wrote a Blog showcasing the correlation between the two pandemics.
- Secured first position for the mentioned research project amongst 85 peers intercollege.

PROJECTS

Alt Bot for Mastadon: An automatic image alt generation bot **Sep 2023 – Jan 2024**
- ✓ Developed a Chrome extension to help the visually impaired browse decentralized social media by leveraging hugging face image captioning ML models to generate alternative descriptions for images in posts in a CI/CD format.
- ✓ Deployed 3 levels of custom cache system to ensure peak and efficient performance with no lag.
- ✓ Being part of a team of 10 members, we also envisioned this being useful in easing the search for specific media.

MedLM: Exploring Language Models for Medical QnA Systems **March 2023 – Aug 2023**
- ✓ Led a team of 4 in fine-tuning diverse language models (e.g., bloom, t5, gpt2) on the MedQuad dataset, comparing them with larger models (gpt3.5, gpt4) using direct questions and dynamic prompt engineering.
- ✓ Collaborated with Microsoft researcher Dr. Asma Ben Abacha, creator of MedQuad dataset, for expert guidance.
- ✓ Utilized ROUGE, BLEU metrics and conducted human surveys for doctors and patients to evaluate the model.

GrooveGenie: A copyright-free music generator **March 2023 – June 2023**
- ✓ Created an open-source music generation model, utilizing Facebook's EnCodec Transformer model to compress audio wav files to an embedding that can be understood by the model.
- ✓ Trained a conditioned GAN network that generates music based on user-provided genre inputs embedded using the BERT model, with a goal of creating only copyright and royalty-free music being trained on the FMA dataset.

Game Genre and Recommendation Classification using Steam Reviews **Nov 2022 – Dec 2022**
- ✓ Designed data pipelines to preprocess and apply machine learning techniques to classify the game's genre, user's sentiment and finally curated a personalized game recommendation system using user reviews.
- ✓ Achieved 90.53% accuracy with RF, balanced data & TF-IDF, outperforming N-Gram, Multinomial NB, Linear SVC.

Divya-Drishti: An Independent Aid for the Visually Impaired **Aug 2020 – May 2021**
- ✓ Achieved a *400%* net cost reduction by creating a real time Voice-activated AI-IoT android application to help Visually Impaired People (VIPs) comparable to state-of-the-art OrCam in detecting currency, objects, and scenes.
- ✓ Published a research paper highlighting the needs of VIPs funded by the Mumbai University Minor Research Grant.

SELECTED RESEARCH PUBLICATIONS

Inampudi S., **Jhaveri J.** et al., (2021) **Machine Learning Based Prediction of H1N1 and Seasonal Flu Vaccination**. Advanced Computing. IACC 2020. Communications in CIS, vol 1367. Springer, Singapore. DOI.org Link

Technical Skills: Python, PyTorch, TensorFlow, OpenCV, Hugging Face, Splunk, Sql, Spark, Docker, Git, Azure, AWS, GCP