JAY JHAVERI

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EDUCATION

Masters of Computer Science   **Sept 2022 – June 2024 (Expected)**
University of California, San Diego (UCSD)   CGPA: 3.96/ 4
  Relevant Courses: Deep Generative Modelling, Advanced-Data Text Mining (NLP), Scalable Data/ML Systems
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, Distributed Systems and Computing, Artificial Intelligence & Computing

WORK EXPERIENCE

Cyber Security & Machine Learning Intern, **Legendary Entertainment**   **June 2023 – Present**
- Reduced false positive anomaly detection time by 10x by Streamlining employee online activity monitoring using Splunk Dashboard and Python scripting.
- Contributed to integrating a FIDO Alliance product into the SSO workflow, enhancing security and user experience.
- Assisted 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.
- Worked on the website's front-end design using the prototyping tool Figma, followed by Bootstrap.
- Co-pitched the online job placement portal, Jobaskit, to 3 University professors alongside the founder.
- Mentored 2 intern recruits working on the digitalization of the teaching process.

Data Analyst Intern, **Leadingindia.ai**   **May 2020 – June 2020**
- Worked in 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

Conversational QnA LLM between Doctor-Patient   **March 2023 – July 2023**
- ✓ Experimented by comparing Fine-tuned distilled generative text models like GPT2, Bloom with larger general models like GPT 3.5 and 4 for a Doctor Patient QnA conversation.
- ✓ Led 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 prompt engineering.
- ✓ Collaborated with Microsoft researcher Dr. Asma Ben Abacha, creator of MedQuad dataset, for expert guidance.
- ✓ Utilized ROUGE, BLEU metrics, and conducted user surveys for doctors and patients to evaluate model performance.

GrooveGenie: A copyright-free music generator   **March 2023 – June 2023**
- ✓ Created an open source music generation model, utilizing Meta's EnCodec Transformer model to compress audio wav files to an embedding that can be understood by the model.
- ✓ Training 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.
- ✓ Trying out different, more efficient Diffusion/Transformer architecture to generate audio.

Divya-Drishti: An Independent Aid for the Visually Impaired   **Aug 2020 – May 2021**
- ✓ Achieved a *400%* net <u>cost reduction</u> by creating a Voice-activated AI-IoT android application to help <u>Visually Impaired People</u> (VIPs) when compared to OrCam.
- ✓ Developed the capability to accurately and efficiently detect Indian Currency notes, colors, and everyday objects.
- ✓ Funded by the Mumbai University Minor Research Grant Program.
- ✓ Received feedback, on the android-Java app developed, by National Association for the Blind (NAB)'s members.
- ✓ Published a research paper highlighting the needs of VIPs.

RESEARCH PUBLICATIONS

Inampudi S., **Jhaveri J.** et al., (2021) **Machine Learning Based Prediction of H1N1 and Seasonal Flu Vaccination**. In: Garg D., Wong K., Sarangapani J., Gupta S.K. (eds) Advanced Computing. IACC 2020. Communications in Computer and Information Science, vol 1367. Springer, Singapore. (https://doi.org/10.1007/978-981-16-0401-0_11)

- **Technical Skills:** Python, PyTorch, TensorFlow, OpenCV2, Splunk, SPL, AWS, Google Cloud, Firebase, Linux, Git