JAY JHAVERI

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EDUCATION

Masters of Computer Science **Sept 2022 – Dec 2023 (Expected)**
University of California, San Diego (UCSD) CGPA: 3.95/ 4
Relevant Courses: Advanced NLP, Scalable Data/ML Systems, Recommender Systems, Computer Vision

Bachelor Of Engineering (Computer Engineering) **August 2018 – July 2022**
Vivekanand Education Society's Institute of Technology (VESIT) CGPA: 9.013/ 10
Relevant Courses: Cryptography/System Security, Machine Learning, Computer Networks, Operating Systems

INTERNSHIP EXPERIENCE

Full Stack Developer, Stealth Startup **March 2023 – Present**
- Integrating Python-based DL architecture to a user-friendly Web Application utilizing AWS and React JS.
- Secured $100K in funding in AWS credits from Adobe.

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.

Data Analyst Intern, Núclei Technologies **Dec 2018 – Jan 2019**
- Applied several supervised ML algorithms such as Linear regression & random forest in R & Python to predict sales of products at specific BigMart store locations based on previous sales data.

PROJECTS

GrooveGenie: A copyright-free music generator **March 2023 – Present**
- ✓ Created an open-source music generation model, utilizing Facebook's EnCodec Transformer model to compress audio wave files to an embedding that the model can understand.
- ✓ 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.

Game Genre and Recommendation Classification using Steam Reviews **Nov 2022 – Dec 2022**
Designed Machine Learning techniques to classify game genres and determine user recommendations such as reviews and hours played. Various models were tested, including N-gram, Multinomial NB, and Linear SVC. Random Forests with Balanced data gave the highest accuracy of 90.53%. *Tech Used:* Python, Pandas, TF-IDF, scikit-learn, TensorFlow

Aatmanirbhar Sanchar: Secure Self-Sufficient Communications **June 2021 – May 2022**
- ✓ Led a team of 4 to design and develop an off-the-grid, cross-platform secure multimedia-supported chat application.
- ✓ Followed a CI/CD approach to build a client-server architecture with the server based on python and React JS.
- ✓ Made in collaboration with the Tata Institute of Fundamental Research (*TIFR*) to be used within the organization.
- ✓ Implemented SHA-256 and AES-256 overlapped inside an HMAC envelope to fight off any kind of cyber attacks.

Divya-Drishti: An Independent Aid for the Visually Impaired **Aug 2020 – May 2021**
- ✓ Created a Voice-activated standalone AIOT android application using Raspberry Pi4 to help Visually Impaired People (VIPs) 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.
- ✓ Achieved a *400%* net cost reduction compared to products made by OrCam.
- ✓ 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, Cyber-Security, MS Office, Linux, Java, AWS, Google Cloud, Firebase