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 CV, Deep Generative Models, Computer Vision, Deep Learning, Scalable 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, Artificial Intelligence and Soft Computing, Software Development, NLP

INTERNSHIP EXPERIENCE

Full Stack Developer, Stealth Startup **Feb 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.
- 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 my peers.

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

Computer Vision Applications **Sept 2022 – Dec 2022**
- Building an image captioning deep learning algorithm using a CNN-LSTM architecture using COCO dataset.
- Implemented edge detection and corner detection from scratch with NMS and hypothesis thresholding.
- Implemented SIFT feature matching with fundamental matrix using epipolar geometry and RANSAC.
- Implemented partially and completely bounded camera rectification with epipolar geometry.
- Implemented SLP, MLP and CNN using Pytorch to perform classification on MNIST dataset.
- Implemented U-Net to perform semantic segmentation and compared it with transfer learning on ResNet16.

Divya-Drishti: An Independent Aid for the Visually Impaired **Aug 2020 – May 2021**
Created a Voice-activated standalone AIOT application using Raspberry Pi4 to help Visually Impaired People accurately detect Indian Currency notes, colors, and everyday objects. The project was funded under the Mumbai University Minor Research Grant Program. Received feedback from the members of National Association for the Blind (NAB). Achieved a *400%* in net cost reduction compared to products made by OrCam. *Tech Used: TensorFlow, OpenCV2, Google Cloud, Raspberry Pi, Android-Java, Linux, Python. Achievement: Published a research paper highlighting the needs of VIPs.*

Code for Change Hackathon: A Data Extraction project **Nov 2020 - 24 hours**
Developed data extracting software for Global Parli Foundation NGO to automate the translation of Land/Farm ownership papers' pdf originally in Devanagari Script into an editable excel sheet using OCR. *Tech Used: Django, Google Cloud, Html/CSS. Achievement: Secured **First** position for the data extraction project amongst the 72 teams participating.*

Automated Number Plate Recognition and Parking System **Dec 2019 – Feb 2020**
Built android application connected to a Firebase server, to automate security and space availability in car parking systems by monitoring the number plates detected at the exits, utilizing already installed CCTVs at the entry and exit gates of parking lots. *Tech Used: Tesseract OCR, Firebase, Android-Java, Python*

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, OpenCV2, TensorFlow, Deep Learning, SQL, Java, C, AWS, Google Cloud, Firebase