Jaydeep Chauhan

LinkedIn : linkedin.com/in/jaydeep-chauhan-57ab3171/   Mobile: +1 (630) 943-9664
Github: github.com/Jd8111997   Email: jaydeept126@gmail.com
Kaggle: kaggle.com/jd8111997

EDUCATION

Indiana University Bloomington, USA — Aug 2021 - May 2023
Masters in Computer Science — *Overall GPA:3.67/4*

Courses: *Applied Algorithms, Elements of AI, Machine Learning, Computer Vision, Advance OS, Applied ML for Computational Linguistics, Masters Thesis(in progress), Music Data mining*

Dharmsinh Desai University, Nadiad, India — Aug 2015 - May 2019
B.Tech in Computer Science Engineering — *Overall GPA:7.57/10*

Courses: *Operating Systems, Data Structures, Analysis Of Algorithms, Artificial Intelligence, Machine Learning, Networking, Databases*

SKILLS SUMMARY

- **Languages:** Python, C/C++, JavaScript, Java SE, SQL, Bash, PHP
- **Libraries:** PyTorch, Scikit, NLTK, Matplotlib, TensorFlow, Keras, JAX, Pandas
- **Tools:** GIT, MySQL, SQLite, Docker, Wandb, Kubernetes, Latex

EXPERIENCE

Computer Vision Research Intern
Vimaan Robotics, Santa Clara, USA — *June 2022 - Sept 2022*

- **Image Quality Assessment(IQA):** Developed a new 'No reference Image Quality Assessment' method using deep learning that can help to assess an image quality and helps to locate the distorted regions in an image in a multi task setting.
- **Data valuation:** Worked on data valuation methods to quantify the sample quality using meta reinforcement learning approach.
- **Image enhancement:** Worked on developing a pipeline for Image enhancement using a state of the art image debluring methods.

Associate Data Scientist - DL Research
ParallelDots, Gurugram, India — *Nov 2020 - Jul 2021*

- **Object Detection Benchmarking:** Contributed in benchmarking of Domain Invariant Object Detectors across various client datasets and tried various state of the art object detection models to replace generalized object detector in ShelfWatch(main product of the company).
- **Training Object Detectors & Classifiers:** Training object detection models and product classifier on various client datasets to achieve high accuracy and good generalization on out of distribution classes.
- **Object Detection for Mobile Device:** Training a object detection models for mobile devices.
- **Research Work:** Contributed in a ongoing research work in semi supervised learning for dense object detection and our work got published in CVPR 2021 retailvision workshop.

Software Engineering Intern
Bhaskaracharya Institute For Space Applications and Geo-Informatics(BISAG) — *Dec 2018 - Mar 2019*

- **Project:** Developed a decentralized chatting application for BISAG scientists based on open source framework : 'Matrix Synapse ', with functionalities such as user registration, emoji and multimedia file sending, birthday wish, delete a message, create and change group-name etc; using Python, Angular and SQLite

PROJECTS

- **Volumetric rendering using Neural Radiance Fields:** Implementation of NeRF(https://www.matthewtancik.com/nerf) to render a 3D view of a scene
- **Supervised Contrastive Learning for pretrained language models:** Implementation of supervised contrastive learning for pretrained language models paper and analyzed the embeddings(https://arxiv.org/abs/2011.01403).
- **Speech Enhancer:** This project is about enhance a audio file using end to end deep learning system. SEGAN(Speech Enhancement Generative Adversarial Network) was used (Aug '20).
- **Autoregressive Generative Models:** Implementation of Autoregressive Generative Models such as PixelCNN and PixelCNN++ on Standford Dog Dataset (August '20).
- **Matrix optimization using Angular and Python:** Developed a decentralized chat application based on popular open-source matrix protocol and synapse server using Angular as front-end and Python-twisted as a backend (March '19).
- **Duplicate Image Detection Tool:** A PyQt based GUI application that can detect Duplicate Images, able to detect noise in Images and delete them (Feb '18).
- **Music Recommendation Engine:** A music hosting site and music recommendation engine built in C# using collaborative filtering (Oct '17)
- **Web crawler and Information retrieval system:** Small project which crawls websites and store information in database. User can retrieve information using search engine and system shows relevant web pages according to the query. Tech : Php, Ajax, Jquery, Javascript, CSS (Feb '17)

Publications

- **Semi-supervised Learning for Dense Object Detection in Retail Scenes**: CVPR 2021 RetailVision Workshop, arXiv preprint:2107.02114(Jul '21)

- **Comparative Study of GAN and VAE**: International Journal of Computer Applications (0975 - 8887) Volume 182 - No.22, October 2018

Honors and Awards

- Won a silver medal for Cassava Leaf Disease Classification challenge on kaggle(top 4% worldwide). - Jan 21

- Won a silver medal for SIIM-ISIC Melanoma Classification challenge on kaggle (ranked top 2% worldwide) - Aug 20

- 'Expert' in Kaggle Competitions(Current rank 1174 out of 166,012)