INDRANIL PATIL

+1(480) 679-9665 ◇ San Jose, CA
indranilpatil53@gmail.com ◇ linkedin.com/in/indranilpatil ◇ indranil53.github.io

EDUCATION

Master of Science, Data Science, Expected December 2023
San Jose State University, San Jose, CA
Relevant Coursework: Database Systems Principles, Linear Algebra, Applied Probability and Statistics, Advanced Machine Learning, Web Intelligence, Topics in Artificial Intelligence (Computer Vision), Regression Theory, Cluster Analysis.

Bachelor of Engineering, Computer Engineering , August 2015 - January 2020
Savitribai Phule Pune University, Pune, India
Relevant Coursework: Data Mining and Warehousing, Data Analytics, AdvancedData Structures, Intro to Machine Learning, Object Oriented Programming.

SKILLS

Programming	Python, R, C++, C
Tools	Excel, Git, AWS, Azure, Nginx, Docker (Basics)
Frameworks	PyTorch, TensorFlow, Keras, Flask, NumPy, Pandas, Scikit-Learn, SciPy, NLTK
Databases	Oracle DB, MySQL, PostgreSQL, MongoDB, IBM DB2

EXPERIENCE

Data Scientist Intern May 2022 - Dec 2022
App Orchid Inc. *San Ramon, CA*

- Applied machine learning (text analysis) to Contract Lifecycle Management in the legal tech space.
- Trained machine learning models to detect multi-column pages and header/footers with an accuracy rate of 95%.
- Trained a ML model for signature detection, by applying various techniques to achieve high accuracy in detecting signatures.
- Developed microservices using Spacy-based models for Named Entity Recognition (NER) in legal contracts.
- Designed and evaluated POCs for entity extraction and presented results to data science team and management.
- Accelerated contract search by 10x and reduced legal review times by 50% through clause-by-clause analysis and extracted metadata with an accuracy rate of at least 80%.

PROJECTS

Markov State Modeling of Oncogenic Protein States September 2022 - Current

- Conducted research on Markov State Modeling of Oncogenic Protein States, exploring the use of Markov State Models to identify local equilibria of protein configurations and determine transition rates between clusters.

Image Classification of Ischemic Stroke Blood Clot Origin September 2022 - December 2022

- Developed and optimized robust classifiers using Transfer Learning Algorithms and latest EfficientNet-B3 model to accurately detect bloodclots causing ischemic stroke in medical images.
- Found that the EfficientNet-B3 model had the best overall performance and versatility in high-resolution image analysis, with a highest accuracy of 75.53% and an inference time of 7 seconds.

Motion Transfer for Video Conferencing. February 2022 - May 2022

- Developed and deployed GANs based on Nvidia's One-Shot Free View Neural Talking Head for Video Conferencing.
- Trained convolutional neural networks with PyTorch for motion estimation, keypoint detection, and head pose estimation, and implemented a virtual camera with OpenCV for real-time video conferencing.

Malaria Detection Using Blood Smear Images. September 2021 - December 2021

- Developed robust classifiers using CNN, VGG-19, and ResNet-50 to identify malaria in RBC smear images, with a focus on tuning CNN hyperparameters for efficiency.

Recapped: Automatic Text Summarizer. August 2018 - June 2019

- Led a team of four in the development of a hybrid text summarizer, incorporating both extractive and n-gram techniques.
- Engineered a model using NLTK, extractive algorithms, and n-gram techniques to produce human-like summaries, evaluated through BLEU and ROUGE metrics.