PUSHKAR KURHEKAR

Mumbai, India | contact@pshkrh.com

EDUCATION

Vidyalankar Institute of Technology, Mumbai, India   **May 2019**
Secured Bachelor of Engineering in Computer Engineering with *Distinction*   **(CGPA 8.52/10)**
Relevant courses: Data Structures, Analysis of Algorithms, Object Oriented Programming Methodology, Software Engineering, Artificial Intelligence, Soft Computing, and Machine Learning.

PROFESSIONAL EXPERIENCE

Tata Consultancy Services Limited, Mumbai, India   **Jul 2019 – Present**
Data Scientist

- Working on a client project for automating the intake, processing, and storage of patient safety data for one of the largest pharmaceutical companies in the US.
- Trained and deployed various Natural Language Processing (NLP) models such as BERT, LSTM, RNN and CRF on the cloud to solve customer-specific problems as part of the automation workflow.
- 40% efficiency gain – X% model accuracy – fully automated a part of the workflow and significantly dropped manual efforts and cost savings

Developer (Computer Vision) – Analytics & Insights, Research, and Innovation   **Jul 2019 – Feb 2020**

- Led the development for an Optical Character Recognition (OCR)-based application for automating the processing and extraction of data from scanned document images.
- Implemented a custom layout analysis algorithm along with object detection models which enabled data extraction from the scanned documents in a semi-structured manner.
- Filed a patent as a co-inventor for the application in the India jurisdiction, filing in progress for the US jurisdiction.

ACADEMIC PROJECTS AND PAPERS

Sign Language Estimation | **Python, OpenCV, Fast.ai**

- Developed an interactive application for recognizing American Sign Language (ASL) hand signs directly from a live webcam video feed.
- Trained a ResNet-34 Convolutional Neural Network on an ASL dataset with 87,000 images, achieving an accuracy of 78.5%. Added special characters in the dataset for 'Space' and 'Backspace', enabled typing of full sentences using ASL alphabet hand signs.
- Won the Best Project Award at Tantravihar 2019, an annual technical competition held at Vidyalankar Institute of Technology.
- Bagged the Best Student Project Award at Computer Society of India (CSI) Mumbai Chapter's event TechNext 2019.

Automated Text and Tabular Data Extraction from Scanned Document Images

- Designed and built a custom logic for preprocessing and extracting data from scanned document images with Computer Vision techniques such as deskew, auto rotation, watermark removal and OCR.
- Authored and published a paper on the same the International Conference on Data Management, Analytics & Innovation (ICDMAI) 2021. Published in Springer in the Proceedings of ICDMAI 2021, Volume 1, ISBN: 978-981-16-2934-1.

Real Time Sign Language Estimation System

- Developed an application for real time prediction of American Sign Language alphabet signs using a webcam.
- Authored and published a paper on the same in the International Conference on Trends in Electronics and Informatics (ICOEI) 2019. Published in IEEE Xplore, ISBN:978-1-5386-9440-4.

TECHNICAL SKILLS

- Programming Languages: Python, Java, C | Cloud Technologies: AWS EC2, AWS Lambda, AWS S3, AWS SageMaker
- Databases: MySQL, PostgreSQL| Other Technologies: PyTorch, TensorFlow, OpenCV, Tesseract OCR

EXTRA CURRICULAR ACTIVITIES

- Elected as the Technical Head, Computer Engineering Students Association (CESA) at Vidyalankar Institute of Technology. Organized and managed multiple technical events such as coding competitions, hands-on workshops, and quizzes from 2017 to 2018.
- Appointed as a Curator at TEDxVIT in 2018. Invited speakers and assisted in preparation of the drafts for their talks.
- Certified as an Amazon Web Services (AWS) Certified Cloud Practitioner in 2021.