Palak Jain

palak.9760@gmail.com | +91 8967127002

LINKS

LinkedIn: palak-jain
Github: Palak-J9760

EDUCATION

IIT KHARAGPUR

M. Tech, 2015 - 2017
in Multimedia Information Processing (CET)
CGPA: 8.72

GEU DEHRADUN

B. Tech, 2011 - 2015
in Electrical and Instrumentation Engineering (EIE)
CGPA: 9.10

SKILLS

PROGRAMMING

• Python • Pytorch • TensorFlow • OpenCV • Keras

ML TOOLKIT/LIBRARIES

• NLTK • Hyperopt • TextBlob • NumPy • Pandas • Scikit-Learn • Matplotlib

PROFICIENCY AREAS

• NLP • Sequence Modelling • Deep Learning • Machine Learning • Computer Vision

PERSONAL PROJECTS

• **Analysing sentiments of Google News articles**
Designed a complete pipeline for automatic scraping, visualization, Sentiment Analysis & summarization.

EXPERIENCE

TCS Research | Researcher
July 2017 – Present | Gurugram, Haryana

- Implemented BERT-backend model (TAPAS) to verify complex natural language facts from semi-structured tables. Building knowledge graphs to incorporate table relations for improved representation learning and complex reasoning.
- Designed a domain-agnostic automatic system to extract tabular information for Question-Answering from PDFs. Improved performance by *25%* against open-source tools (Camelot & Tabula).
- Designed a two-level deep neural network model to forecast sales across *72* categories (*6M* SKUs).

PUBLICATIONS

- **Mining company sustainability reports to aid financial decision-making** AAAI-KDF 2020 | New York, USA
- **Extracting Tabular data for Question-Answering from Documents** CoDS-COMAD 2021
- Submitted two papers for review in AAAI and WSDM 2021.

PROJECTS

- **Non-linear, competitive, dynamic price optimization system**
Designed a system that recommends optimal price for millions of products for online retailers to maximize overall yield. It uses factors like competitor price, seasonality, external events etc. The system increased overall margin of the client by **4%** (approx. **3M USD**).
- **Scalable Content Based Image Retrieval (Scalable CBIR)**
IIT Kharagpur | M. Tech thesis
Designed a system that efficiently searches large database and retrieves best matched images for a query image.

ACHIEVEMENTS

- **Session Chair in two conferences (2020)**
SoCTA (Track – Computer Vision & Natural Language Processing)
CAMSE (Track – Application of Machine & Deep learning for quality assurance)
- **Delivered Expert talk at NIT Jalandhar** in e-short-term course tilted 'Data Analytics Tools and Techniques' on NLP.
- **Gate Achiever Award** For securing *AIR 183* in GATE 2015.
- **Gold Medalist** of EIE department (2011-2015 batch).

PATENT

- System and method for dynamic pricing with two level deep learning architecture for sales prediction (in process).