Palak Bansal

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PROFESSIONAL SUMMARY - I am experienced in Java and Python and have extensive knowledge of software development along with machine learning and deep learning libraries. My communication skills are excellent and I have spoken about Data Science at multiple conferences. I am looking forward to exploring different problems in new industries to support my expertise while I complete my MS in Data Science at NYU.

EDUCATION

NEW YORK UNIVERSITY, New York
Master of Science, Data Science   *2022-2024*
   Current coursework: Optimization and Computational Linear Algebra, Intro to Data Science, Probability and Statistics
   Expected coursework: Machine Learning, Big Data, Database Management, Natural Language Processing

MANIPAL INSTITUTE OF TECHNOLOGY   Manipal, India
   B.Tech. Information Technology, CGPA: 8.46/10   *2015-2019*
   Minor specialization in Data Analytics
   Relevant coursework: Machine learning, Computer vision, Pattern recognition, Information Retrieval, Business Intelligence
                    Big data analytics
   Additional coursework: 'Neural Networks and Deep Learning' by DeepLearning.AI on Coursera
   Best student award: President of student club ISTE, Manipal

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SKILLS

   LANGUAGES : **C++(Advanced), Java(Advanced), Python(Intermediate)**
   TECHNICAL SKILLS : **NLP, Deep Learning, SQL, Graphql, Microservices, Data Structures, Algorithms, Tensorflow, Pandas, Numpy**

EXPERIENCE

SAP ARIBA   Bangalore, India
   Developer Associate   *2019-2022*
- Contributed as **backend developer to a spring boot application** that performs optimization and analysis of procurement data.
- Generated real-time intelligent insights for customers using **unsupervised learning, anomaly detection and feature selection**.
- Designed and developed multiple business critical features, **GraphQL and REST APIs** for exporting data, enabling note sharing, connecting to multiple data sources, integrating with other microservices and multivariate visualization.

   Data Science Intern   *2019*
- Performed **NLP** tasks including **Named Entity Recognition**, **Text Classification**, **Similarity Calculation** to extract information by **transforming unstructured and differently structured data** to the structure required by the SAP system.
- Researched and applied various NLP tools and techniques including **Pandas, NLTK, GloVe, BERT, ElMo and IBM Watson Knowledge Studio** to perform similarity calculations for column mapping with **82% accuracy** and **NER** to identify entities from unstructured customer data with **0.76 precision and 0.62 recall**.
- **Won the poster presentation** for this at **WE Local India** conference organized by SWE, Society for Women Engineers.

RELIANCE JIO   Mumbai, India
   Data Science Intern   *2018*
- **Preprocessed, analyzed and visualized data** logs generated by Netra AAT(Automatic Antenna Tuner) using **R and Python** working on libraries like **Tensorflow, Pytorch and Matplotlib**.
- **Applied neural networks** using **Keras** to classify Netra's reading to **predict reliability of results** and improved the performance by **20%, rejecting the less reliable readings.**

ENGINEERING PROJECTS

INTELLIGENT INSIGHTS GENERATION   *2021*
- **Built a Django application** to generate insights from customer data which provides information about the distribution, highlighting exceptional instances and important features **in real time with unsupervised learning**.
- Researched and implemented various **outlier detection algorithms** and a **feature selection algorithm** specific to the use case.
- Presented the work in **SAP's largest conference SAP DevX** as a part of the Predictive Summit.

INFORMATION EXTRACTION FROM UNSTRUCTURED DATA   *2017*
- Developed a tool to **perform topic modeling** to identify topics from academic corpuses in sample texts using **LDA and Mallet.**
- Implemented and compared all the existing word similarities and sentence similarities based on **NLTK WordNet**.

PRICE PREDICTION   *2019*
- Predicted prices of various items grouped in categories within a $5 margin using times series data spanning multiple years.

ACHIEVEMENTS AND AWARDS

- **SOCIETY OF WOMEN ENGINEERS - WE LOCAL BENGALURU CONFERENCE**   *2022*

  Panelist and primary speaker for "Communication skills for women in tech" at the SWE (Society of Women Engineers) WE Local Bengaluru conference 2022.

- **GLOBAL CODEATHON AND IDEATHON AT SAP ARIBA**   *2020*

  Made it to the finals for creating a prototype of an intelligent tool generating insights and performing intelligent supplier recommendation.

- **CODING CONTEST WINNER**   *2019*

  Won a coding contest focusing on competitive coding organized by Honeywell at the WE Local India conference in Bengaluru

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EXTRACURRICULARS AND COMMUNITY SERVICE

- **"UNCONSCIOUS BIAS" SEMINAR AT SAP-** Delivered a seminar on "Unconscious bias" at my workplace with over 150 attendees.   *2021*
- **EMPOWER PROJECT -** Organized an initiative for women in technology to improve their communication skills. Mentored the first batch of 10 women through well structured sessions involving technical discussions and blog writing.   *2020-2021*
- **GLOBAL YOUTH LEADERSHIP & GIRL-CHILD FOUNDATION (GYLGF) -** Volunteered to mentor young girls in Nigeria through the Raising Girls Ambition (RAGA) project by Global Youth Leadership & Girl-child Foundation (GYLGF)   *2021*
- **TECHNOVATION IDEA LABS, BY UNESCO, TECHNOVATION AND SAP -** Volunteered for Technovation Idea Labs – AI/Entrepreneurship program to empower girls with artificial intelligence (AI) entrepreneurship skills.   *2020*
- **ROTARACT CLUB -** Volunteered for clothes distribution drives, orphanage and old age home visits at Rotaract Club, Manipal.   *2015-2017*