Snehalraj Chugh

Data Science Engineer

EDUCATION

Masters of Professional Studies in Data Science (M.P.S DS), University of Maryland Baltimore County (UMBC) 08/2023 - 05/2025 Relevant Coursework: Introduction to Data Science and Statistics, Data Management, Ethical and Legal Issues in Data Science [1st Semester]

B.Tech in Computer Science Engineering, MIT World Peace University, Pune, India

Relevant Coursework: Computer Organisation and Architecture, Data Warehousing and Data Mining, Big Data Analytics, Cognitive Computing, Natural Language Data Processing, Computer Vision, Deep Learning, Data Structures, Design and Analysis of Algorithms.

WORK EXPERIENCE

- Supported AI and ML-based recording products for dedicated customers (ANZ Bank).
- First-line-service engineer for multiple full-time products, monitoring system trends with PowerBI Dashboard.
- Solved customer issues weekly over platforms such as CISCO and AVAYA, increasing efficiency by 40% and saving the company around \$3000 monthly.

Data Scientist and Web Development Intern, Applus+ Idiada, Pune, India | (Internship)

- Led "Adiada Lists", a web-based portal's development using Django, ReactJs & databases aiding the recruitment team customize company's hiring pipeline.
- Managed, mediated, and supervised a group of 5 engineering interns and implemented Neural networks which improved parsing of applicants' information.
- 10 types of list variations added such as Order updates, recruiting lists, financial listings, sales, etc., benefiting employees by utilizing customization.

Head Data Analyst and Talent Manager, AIESEC in United States | (Internship)

- End-to-End developed data analytics solutions for various US AIESEC committees & educated vice presidents via visualized data to improve their teams.
- Envisioned & automated their pipeline using Google Analytics, growing US AIESEC data demands & pain points with Python, & visualized over PowerBI.
- Compiled, organized, and released monthly conclusions using information from 15000+ National Membership Survey responses.

PROJECTS

Automation within Handwriting Analysis

Subjective AI module trained with Yolo, CNN, & Real ESRGAN on cancelled/scribbled words to analyze and mimic humans' handwriting better in OCR.

Performed tSNE-based visualizations for clusters of extracted words.

- Mental Health Analysis using Machine Learning Trained 7 ML models: KNN, Decision Tree, Naive Bayes, Random Forest, SVM, & 2 ensemble algorithms on DASS-21 questionnaire (10,000 responses)
- Self-Captured a dataset of more than 500 participants for in-the-wild testing of the module predicting anxiety, depression, and stress (100% accuracy)

AI in Military Operations using hand recognition system

Developed CNN based on Mediapipe's mapping system and OpenCV for a heuristically optimized approach to project hand models in military helmets.

Model trained on self-captured dataset of 10,000 hand pictures, aiding in real-time capturing & detection, with sound elements added for each class.

Spotify Mood Prediction System

- Applied Exploratory Data Mining, Analysis and Visualization using single hot encoder, label binarizer on Spotify's dataset.
- Achieved clustering via K Means and K Medoids. Baseline comparison with Decision Tree, RF, SVM, where Linear Regression outperformed
- Sentiment analysis of tweets related to Covid 19 Vaccination for age 18 and above
- Performed Clustering over 1,00,234 tweets with 99% accuracy, applying granular tokenization, stemming, & lemmatizations; visualized using Tableau.

VOLUNTEERING & RESPONSIBILITIES

| • | Sports Marketing Student Coordinator at UMBC, I have been managing UMBC sports events, implementing marketing strategies, creating engaging ads, planning rewards, and coordinating logistics for enhanced fan experiences. | 09/2023 - | Present |
|---|--|----------------------------|---------|
| • | Showcased a Paper at ICT4SD 2022 to the Chief IT Minister, India, with 150+ other researchers. | | 07/2022 |
| • | As Public Relations in Computer Society of India managed 12 events and marketing of each besides showcasing leadership and technical skills benefiting 700+ students & localities | 04/2021 - | 02/2022 |
| • | Addressed 17,000 members at "7th World Parliament of Science, Religion and Philosophy" on the thoughts of Youth about 'Peace | e'. | 10/2021 |
| • | Associated with AIESEC in Pune contributing towards social work teaching poor kids and benefitting organization with 130+ new clients and raised INR 85,000 for various events such as Transcendence , Youth Talks , Women's Day Campaigns , Hackathons . Engagement Manager at Rotary Club of Kolhapur contributed to benefitting more than 35000 people assisted 35+ social events. | 06/2020 - (06/2017 - (| |

SKILLS

- ML & AI: NumPy, SciKit-Learn, Tableau, PowerBI, Big Data, Pandas, Matplotlib, Neural Network, Deep Learning, Yolo, TensorFlow, TinyML, Natural Language Processing, Data Analysis, Parallel Computing, PyTorch, Statistics.
- Databases: MySQL, Relational Databases, Amazon Web Services, PostgreSQL, MongoDB, Flume, Hadoop File System (HDFS), Hive, GitHub.
- Technical Languages: C, C++, Python, HTML, CSS, PHP, Node.JS, JavaScript, Django, Bootstrap, ReactJs, Spark.
- Non-Technical Skills: Team Building, Leadership, Analytical, Public Speaking and Management, Strategic Planning, Sales and Marketing, Negotiation, Communication and Organizational Skills, Business Branding.
- Certifications: Please refer LinkedIn.

PUBLICATIONS

- The Evolution of Military Operations: Artificial Intelligence to detect Hand Gestures in Defence, International Journal of Computational Intelligence Studies: Inderscience Publishers, Nov 3, 2022.
- DASS-21 based Psychometric prediction using Advanced Machine Learning Techniques, Journal of Advances in Information Technology, Vol. 14, No. 3, 2023
- Recognition of Struck Out Words using a Deep Learning Approach, ICT for Sustainable Development Conference: Springer Publications,
- Nov 6, 2022.
- Twitter Sentiment analysis of Covid- 19 vaccination using Deep Learning, ML Algorithms for Intelligent Data Analytics Book Chapter,
- Dec 30, 2022
- The Evolution of Military Operations: Artificial Intelligence to Detect Hand Gestures in Defence

09/2021 - 05/2022

10/2021 - 12/2021

03/2021 - 06/2022

11/2020 - 02/2021

| 06/2020 | 00/2020 |
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Published

Published

Published

Published

Patent Pending



CGPA: 8.85 | 2018 - 2022

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07/2022 - 07/2023

08/2021 - 03/2022

07/2021 - 02/2022