ASHWATH **SHETTY R**

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Links

Portfolio: https://ashwathshetty.netlify.app/
Linkedin: https://www.linkedin.com/in/ashwath-shetty14/
Github: https://github.com/Ashwath-Shetty

Professional Experience

Elsevier
Remote, India

Data Scientist II
Jan 2023 – Present

- I'm part of the **R&D** team based in **Amsterdam**. The team's primary focus revolves around pioneering research and development of cutting-edge deep learning models in Natural Language Processing (NLP) and Computer Vision (CV).
- Spearheaded the creation of an advanced **Multi-Modal LLM** based system, generating alt-text for nursing book images to enhance accessibility for visually impaired individuals.
- Developed a **multi-modal and multilingual** deep learning model using LiLT to extract entities from PDF-formatted scientific research articles. Extracted Entities are subsequently added to **Scopus** database.
- Designed and developed a common evaluation pipeline for assessing the performance of the Entity Extraction System. Currently employed by 3+ teams to evaluate diverse services, including those from products like **Science Direct.**
- Stakeholder management across the customers, product managers & Engineering team to bring the product to the market. Collaborating closely with teams in **Europe & North America**.

Tata Elxsi Ltd.
Bengaluru, India

Senior Software Engineer (Data Science)
Oct 2019 – Dec 2023

- Started as a software engineer & worked in a game development project for a short time and later moved to data scientist role. I was **promoted to a senior role within two years** due to my exceptional performance**.**
- Developed Multiple Educational Games for **Disney**, collaborated with teams in **USA, UK, Australia, Mexico**.
- Engineered a **NER** based **Recommendation system** to identify confidential information in documents for Redaction.
  - Developed system decreased the time taken for redaction by **90%** and enhanced the speed of redaction by **10X**.
  - Led the project from inception to deployment, reporting directly to the **Co-founder and CTO** from the client's side. This effort resulted in the company securing **$900k** in pre-seed funding.
- **Automated the transaction verification** process in the truck-based delivery system for a Mexican company to optimize human interaction and increase verification speed.
  - Independently managed the **end-to-end NLP pipeline** for the project, including the development of a document similarity-based algorithm for document classification.
  - Developed system helped in **saving $10M** per year to the company by optimizing the truck delivery process.
- Designed and developed an automated performance review pipeline to analyze the data and generate reports, facilitating a comprehensive understanding of the game development team's monthly performance.
- **Designed and developed a machine learning framework** for structured data, resulting in a 2X increase in development speed and overall efficiency.

Personal Projects

- **Fraudulent Transaction Detection:** https://github.com/Ashwath-Shetty/Fraudulent-Transaction-detection
  - Trained ensemble models of **decision tree**, **logistic regression, random forest** to detect Fraudulent credit card transactions. Handled the **Imbalanced data** using **SMOTE**. The Developed solution secured a position in the **top 1%** in Amex Hackathon conducted on HackerEarth.
- **Using AI to support affordability of oncology immunotherapy treatments:**
  - Developed a machine learning based methodology to predict the time to the next treatment curve for oncology immunotherapy. Additionally, created a dashboard to visualize the results. This project was carried out in collaboration with Omdena and Mango Science as part of Omdena's AI for Good initiative. The project also involved continuous interaction with oncology specialists and patients.
- **Web Application to Predict the Car Price:**
  - Developed a used car price predictor using different ML techniques. The developed solution achieved a **top 2%** placement in the **All India Analytics Olympiad**.
- **End to End Handwritten Character Recognizer:**
  - Developed a convolutional neural network (CNN) using Keras to detect handwritten characters and deployed it as a web app using Gradio on Heroku.

Education

Dayanand Sagar University Apr 2015 - Apr 2019
Bachelor of Technology in Computer Science   **CGPA: 8.80/10**
• **Relevant Courses:** Machine Learning, Data Science, Probability and Statistics, Discrete Mathematics, Database Management System, Data Structures and Algorithms, Objected oriented Programming, Parallel Processing, Operating systems, Networks.
• **Extracurricular:** As a member of NVIDIA - Boston Innovation Lab, I organized hackathons and technical events. Additionally, led the Final year project team in several inter & intra college hackathons and seminars.

Achievements and Open-Source Contributions

• **Actively Participating in the open-source contribution with Omdena(** https://omdena.com/ **) to execute many AI projects successfullyin collaboration with the NGOs and Startups.** Also, part of Omdena's AI community in promoting AI for good**.**
• Participated in 10+ hackathons and placed in top **1-5%.** Currently at **Level Master in Machine hack**'s ML Hackathon Category and achieved an all-time **global ranking of 215**.
• Completed Machine Learning and Deep Learning Specialization from **Stanford** through Coursera. https://ashwathshetty.netlify.app/#accomplishments
• Delivered a tech talk at Vellore Institute of Technology, Andhra Pradesh, India, discussing the current and future states of Multi-modal Language Models (LLMs).

Technical Skills

Languages / Libraries: Python, SQL, Pandas, Numpy, Sci-Kit learn, C, C++.
Model Selection and Building: Supervised and Unsupervised Machine learning techniques, Regression, Classification, Clustering, Dimensionality Reduction, Deep Learning, NLP, Computer Vision, GenAI, LLMs, Chatgpt.
Data Visualization: Plotly, Seaborn, Matplotlib.
Secondary/Additional Skills: AWS, Spacy, Microsoft Office, Docker, Keras, Git, Github, Dagshub, JIRA.
Data Structures & Algorithms, System Design.