## ADARSH BALAN

Research Associate, ISB - Hyderabad

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### **CAREER SUMMARY**

With expertise in Finance and Analytics including machine learning methodologies, I aspire for a position to discover uncovered possibilities in the AI/ML/Data science arena. I am confident to work on the following aspects:

- Machine learning model building
- Data engineering and orchestration

- Model tuning and deployment
- Gen AI/LLM Application and Research

## TECHNICAL COMPETENCIES

| TECHNICAL SKILL   | Expertise                                | Exposure                              |
|-------------------|--|---------------------------------------|
| Programming       | R, Python, SQL                           | Cypher/Neo4j                          |
| ML                | Logistic regression, DT, RF              | NLP, Forecasting, Neural network, KNN |
| AI/GenAI          | Langchain, Mistral, OpenAI, Ollama       | Lida, llama 2                         |
| Tools & Platforms | Docker, Azure, Mage AI, VS Code, Tableau | Git, bash, AWS, Power BI              |

#### **EDUCATION**

Indian School of Business (2023), Advanced Management Programme in Business Analytics (AMPBA) Panjab University – GCCBA Sector 50 Chandigarh (2018), BCom

ICMAI (2018) - CMA Intermediate

### PROFESSIONAL EXPERIENCE

# Research Associate with Prof. Karthik Balakrishnan - Indian School of Business, Hyderabad

Oct '23 - Present

- Machine learning projects in accounting domain.
- Scraping and applying NLP techniques on unstructured textual data.
- Building RAG system to retrieve answers from SEC forms.
- Writing case studies on cost accounting in healthcare domain for evaluating PMJAY Ayushman Bharat Insurance Scheme.

# Project Associate, Bharti Institute of Public Policy (BIPP), Indian School of Business, Mohali

Jan '23 – Sep '23

- Provided financial management and administrative support for BIPP grants/projects, including expense tracking and record maintenance, PR handling, and contract drafting.
- As a Scrum Master for the India Data Portal project, successfully maintaining a comprehensive planner for the complete end-toend management of SKUs.
- Creating dynamic data visualizations and Tableau dashboards for policy-related datasets, web scraping, data cleaning.

# Senior Executive - Cost Accountant, Max Healthcare Institute Limited, Mohali

Nov '21 - Sep '22

• Implemented Costing Module-NAV Software, processed monthly closing activities, prepared Patients Based Costing Reports, generated MIS Reports, and coordinated with cost auditor for compliance.

## Industrial Trainee at Indian Oil Corporation Limited, Punjab State Office, Chandigarh

Sep '20 - Aug '21

 Worked in SAP environment, handling Capital Assets Accounting, T Codes of FI, Assets, and MM Module, Preparation of Capital Expenditure Report

## Cost Assistant at Khurana & Co. Cost Accountants, Mohali

Apr '19 – Mar '20

Assisted in preparing Cost Records, conducting Cost Audit, conducting bi-monthly stock, and handling Income Tax and GST returns & scrutiny cases including Filing Form No. 35 (Appeals).

### **PROJECTS**

- Spearheaded the complete development of AMPBA Capstone project "Anomaly Detection in Business Processes using Generative AI" for Deloitte, developing an application to generate actionable insights in expansive business datasets, thereby elevating financial governance. Managed all phases, from liaising with sponsors and faculty mentors, HLD, LLD, complete code implementation, LLM model and agent identification and testing, data orchestration, deployment.
- Designed and implemented an AI-powered application for personal browser history analysis, utilizing Python, LIDA, and OpenAI GPT models, by categorizing browsing data, offering insights through AI-driven visualizations, and featuring an interactive chatbot for custom queries.
- Developed a **forecasting model** using Azure Auto ML to forecast **electricity consumption in industrial and commercial sectors**, resulting in less than 2% deviation in ML model and deployed the app on Streamlit.
- Finetuned UNet model with ResNet as backbone for image segmentation on pathology images with mask images nuclei marked on them, achieving a best validation loss of 10%.