

Risan Raja

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OBJECTIVE: Seeking a Research-Focused Machine Learning Engineer position to utilize 4+ years of experience and a strong aptitude for problem-solving in developing and implementing innovative solutions within a dynamic and challenging environment.

WORK EXPERIENCE

CENTER FOR COMPUTATIONAL BRAIN RESEARCH, IIT MADRAS 2024-2025

ML and Computer Vision Research Intern

2024-2025

- Developed Automated Image Registration and Stacking for Histological Images. Repurposed various **SOTA MRI** based registration pipelines for histological images by optimizing it to handle large histological images (200GB+/image).
- Developed a novel optimized pipeline for finding errors within the annotated anatomical structures by adopting the best practices from geospatial data processing.
- Implemented an end to end ETL pipeline using **Dask and Pytorch** which leveraged the existing anatomical data stored in geospatial format to stream asynchronously **100K patches/s** of large histological for training the deep learning models.
- Contributed to the development of **RAG based QA** system for Neuroscience based projects.
- Developed automated CI/CD pipeline to integrate with the frontend using Jenkins and Docker

IBG CONSULTING..... 2021-2024

Business Analyst

2021-2024

- Worked closely with the management to develop a machine learning model using **Pytorch and NIXTLA** based on the trading patterns of the commodities options and futures markets to model the viability of sales/export demand in various international markets for raw materials procured by the company.

CODERSTRUST 2017

Digital Marketing Strategist

2017

- Strategized and executed a digital marketing campaigns in the APAC region. Worked with the CMO and cofounder to develop a data first approach to marketing by leveraging the data from the company's LMS and CRM to develop a more targeted marketing strategy.

NIELSEN SPORTS..... 2016

Digital Analyst

2016

- Implemented a data pipeline to ingest data from multiple large social media entities to seamlessly integrate with social media valuation tools
- Worked on NLP based sentiment analysis to gauge the sentiment from the collected data and develop a more robust social media valuation algorithm.

AWARDS

First Place, PixelMind AI Hackathon 2023

- Created an AI Agent using **RL** by leveraging the MAXIM and SPLINET for automatically enhancing high-resolution photography images.

EDUCATION

B.S. Data Science and Programming, IIT Madras 2024

BSc Information Technology, SMU 2018

- Created a **L^AT_EX** class that enables anyone to quickly create a beautiful resume and cover letter.