SUJAN BHARADWAJ

Contact No: 0401611069, **Email ID:** sujanbharadwaj23@gmail.com , **LinkedIn Profile:** Sujan Bharadwaj
Visa Status: Visa Subclass 485 – Full-time Work Rights

SUMMARY

AI & Data Science Engineer with ~3 years of experience in data science, machine learning, and cloud analytics. Proven track record in building ESG knowledge graphs, scalable data pipelines, and deploying ML models across sustainability, healthcare, and research domains. Proficient in **Python, SQL, SPARQL, PyTorch, AWS**, and modern data visualization tools. Adept at transforming academic innovations into robust, production-ready systems that generate real-world business impact through automation and AI-powered insights.

TECHNICAL SKILLS

- **Languages**: Python, C, SQL
- **ML & Data:** PyTorch, TensorFlow, Pandas, Scikit-learn, RDFLib, SPARQL
- **Cloud & Tools**: AWS, Azure, Docker, REST APIs, Git, Linux
- **Visualization & BI:** Google Data Studio, QlikView, Matplotlib, Seaborn
- **Other:** Data Structures, System Design, OOP, Agile, GitHub, JIRA

EDUCATION

Master of Information Technology (Artificial Intelligence) *May'23 – May'25*
University of New South Wales (UNSW), Sydney, Australia

Bachelor of Engineering - Electronics and Communication. *Aug'16 - Aug '20*
B.N.M Institute of Technology, Bengaluru, India.

ACHIEVEMENTS

- Microsoft Azure Fundamentals (**AZ-900**) Certified
- IRJET Publication: ***"Multi-Account Embedded ATM Card"*** (Embedded System Security) Read Paper

PROFESSIONAL EXPERIENCE

AI Engineer Intern *Apr'25 – Present*
Scinter, Sydney, Australia

- Designed and enhanced **Large Concept Models (LCM)** to extract interdisciplinary insights from scientific literature.
- Built **Dynamic Knowledge Graphs** mapping publications, entities, and emerging research trends.
- Structured unstructured data into ontologies for **semantic search**, concept reasoning, and visual analytics.
- Supported deployment of scalable NLP pipelines for **automated concept linking** and **trend forecasting**.

AI & Data Science Engineer (Part-Time) *May'23 – May'25*
UNSW, Sydney, Australia

- Led end-to-end development of an **ontology-enhanced ESG analytics platform**, integrating domain-specific knowledge graphs, RDF ontologies, and SPARQL queries with principal component analysis (PCA) to produce interpretable sustainability insights across sectors.
- Built a reusable **ESG Knowledge Graph Engine** using Python and RDFLib, enabling automated feature selection, disclosure-topic classification, and industry-specific ESG profiling based on SASB standards.

- Designed and deployed **deep learning pipelines** for environmental and marine image segmentation:
    - Developed a U-Net model with Group Normalization and dropout layers to process RUGD terrain data under challenging lighting, achieving an 18% boost in pixel-level accuracy.
    - Applied CNN architectures to the SeaTurtleID2022 dataset, reaching 0.84 IoU and over 92% classification accuracy for marine species recognition.
- Created a **multi-label classification system** for disease detection in healthcare datasets using SMOTE for imbalance handling and batch normalization for improved convergence; achieved an average ROC-AUC > 0.91 across multiple conditions.
- Conducted **comparative benchmarking** of traditional and DL models (SVM, HOG+SVM vs CNN) across domain-shifted datasets, with deep learning models outperforming by 20–25% in F1-score.
- Documented all experiments in reproducible modules for potential open-source publication, emphasizing engineering standards, modularity, and cross-domain reusability.

Cloud Analytics Analyst: *Jan' 21 – Feb'23*
Accenture, India

- **Automated end-to-end cloud cost analytics workflows** using Python, SQL, and REST APIs, reducing manual reporting time by **~40%** and enabling real-time anomaly detection for infrastructure cost spikes across multi-cloud environments (AWS, Azure).
- **Designed and deployed interactive KPI dashboards** in Google Data Studio and QlikView, enabling 20+ stakeholders across engineering and operations to track resource consumption, forecast trends, and make data-driven budget decisions.
- **Led a resource optimization initiative** that identified underutilized and idle cloud assets including EC2 instances, storage buckets, and Elastic IPs—resulting in **monthly cost savings of 25–30%** for enterprise clients.
- **Developed a suite of modular scripts and monitoring tools** to track usage patterns across AWS EC2, Azure Blob Storage, and RDS instances, improving visibility into resource consumption and streamlining compliance reporting for ISO and internal audits.
- **Bridged communication gaps between technical and financial teams** by aligning usage metrics with billing forecasts. Created standardized usage-to-cost mapping logic that improved billing accuracy by **15%**.
- **Mentored three junior analysts**, sharing best practices in cloud optimization and analytics scripting, and contributed reusable code modules to internal automation repositories—enhancing team productivity and onboarding efficiency.

IoT Intern – Health Monitoring System *July '19 – Aug'19*
Nettur Technical Training Foundation

- **Engineered a real-time health monitoring system** integrating temperature, heart rate, and motion sensors with microcontrollers to continuously track patient vitals and trigger alerts for anomalies.
- **Programmed embedded systems** using C to handle real-time signal acquisition and processing, achieving response latency under 250ms, crucial for timely health interventions.
- **Implemented signal filtering and validation algorithms** to minimize false positives and ensure >95% system reliability in noisy test environments.

REFEREES

Contact Details Provided upon Request.