

## PROFESSIONAL SUMMARY

Seasoned **AI/Machine Learning** Specialist and Leader with a decade-long track record crafting and implementing intricate, cutting-edge machine learning solutions spanning across Python, Generative AI, NLP, computer vision, and deep learning. Proficient in harnessing the power of AWS/Azure Cloud Services and well-versed in AI Strategy, program management, research, MLOps.

## TECHNICAL EXPERTISE

- Data Science & Machine Learning
- MLOps - AWS & Azure
- Program & Stakeholder Management
- NLP, LLMs, Generative AI
- AI Strategy & Consulting
- AI/ML Research & Product development

## DOMAIN EXPERTISE:

- FS & Insurance
- Oil & Gas
- Automotive

## PROFESSIONAL EXPERIENCE

### Sr AI Solutions Engineer - ChainML Canada Inc.

Feb 2024 - May 2024

*ChainML specializes in AI research and development in Blockchain & Web 3.0, focusing on the creation of AI agents. They offer **Council Analytics**, a **Generative AI** platform for conversational analytics via API, and are developing a Web3 AI Agent Protocol to enable decentralized, secure AI services.*

- **Leading** the design and architecture of custom machine learning solutions, serving as the Principal Liaison between R&D, Engineering, and client teams. Successfully navigated the complexities of integrating ML/AI solutions to 2 client environments (as PoC, Production use cases).
- **Strategic AI Partner:** Fostered strong relationships with business partners, investing in their AI goals and priorities, and effectively translating complex technical concepts into actionable business insights and outcomes.
- **Developed & Deployed: Generative AI** - LLM-powered agents using OpenAI, Claude integrated with in-house agentic framework and tools such as LangChain/LLamaIndex, pytorch, vector databases and scalable production MLOPs, Docker, CI/CD, to build a robust conversational analytics engine for an enterprise customer, enhancing data-driven decision-making and customer engagement.

### Principal data Scientist - ACCENTURE STRATEGY & CONSULTING

Nov 2020 – Feb 2024

***Steering** a talented team of **6+** Data Scientists, Python/UI developers, and Cloud developers at Accenture within the Strategy & Consulting division. Responsible for orchestrating the creation and delivery of high-impact ML/AI solutions, infrastructure, catalyzing enterprise reinvention and data-driven decision-making for multiple clients.*

- **Spearheaded** the design and architecture of AI-driven solutions across distributed teams, leading to streamlined decision-making and enhanced operational efficiency for businesses.
- **Built and managed** a high-performing team of **6+** machine learning and data science researchers and practitioners, upholding highest standards in people management and conflict resolution.
- **Strategic guidance and leadership:** Identified and evaluated opportunities for leveraging AI/ML, resulting in practical solutions that empowered Industry practitioners to adopt optimal solutions.
- **Generative AI:** Pioneered the organizational drive towards rapid adoption of cutting-edge Generative AI/LLMs like Open AI GPT3/4, Anthropic **Claude**, **Bedrock** APIs, python backend, other cutting edge machine learning techniques and so on.
- **Led** the development and deployment of a highly efficient AI copilot and a recommender/personalization system within a leading Insurance provider, culminating in streamlined processes and a remarkable **>50%** reduction in median claims processing times.

- **Data Science & MLOps:** Developed & productionalized multiple end to end AI driven solutions for Global Insurance Majors. techstack - **Python**,pytorch/Tensorflow, Classic & Gen AI, OCR & RAG and other tools such as Flask REST API & JavaScript-React JS UI, docker & Kubernetes in cloud (**AWS**) ecosystem, model tracking using MLFlow and so on. Ensured a 50% better fraud capture rate and multi fold reduction in processing times with **\$2 million+** a year estimated savings

#### Computational Data Scientist - EXXONMOBIL

**Dec 2017 – Nov 2020**

Instrumental in developing computational & data driven methods to solve complex upstream Oil & Gas problems. Primarily involved in developing & designing Data & AI driven solutions to deliver business value

- **Machine Learning & NLP:** Ideated, developed and deployed a comprehensive log text classification system using python backend and RNNs for an Oil rig maintenance log classification, driving advancements in predictive maintenance strategies, with anticipated savings exceeding \$1.5 million across a three-year span in onshore platform.
- **Analytics & Visualization:** Spearheaded the development and execution of advanced reservoir data analytics and visualization strategies, Well scheduling analysis for unconventional projects etc, harnessing cutting-edge tools and techniques. Applied robust inhouse visualization frameworks to distill complex reservoir data into intuitive, accessible formats, empowering decision-makers to swiftly interpret and act upon critical insights

#### CAE Research Analyst - MERCEDES BENZ

**Jul 2013 – Dec 2017**

- **Analytics & Statistics:** Developed and implemented Machine Learning & Statistical models for Automotive components in Automotive HVAC systems, Assisting HVAC system design, CFD/1D simulations, implemented innovative fluid flow pattern classifications.

### **FREELANCING**

Neptune AI – **Technical Content writer:** Created content for over **3** blogs on latest trends & applications in Machine learning, MLOps, computer vision and so on(Links given below)

### **KNOWLEDGE PURVIEW**

- Machine learning, big data, Spark, ML architecture, Deep Learning, BERT, BART, Open AI-GPT & word Embeddings, RNNs based NLP(Natural Language processing) algorithms, feature engineering, Computer Vision & OCR, Classic ML models like Regression/classification Models (Linear & Ensemble based methods like Random Forest, XGBoost, sklearn), KNN, SVM, clustering and complex models like Transfer learning,,
- MLOPs tools -MLflow, Docker, Apache Airflow, DAGs, Weights & biases, PySpark, Databricks etc.
- Python, Numpy, Pandas, Scipy, Scikit-Learn, Pytorch, Tensorflow, web development - Flask API, GitHub, Linux, JavaScript, Node.js, React JS, **Databricks**, Azure, Kubernetes, **AWS** suite of services like AWS Lambda, EC2, ECR,S3, CI/CD, **Azure** pipelines.
- Data engineering & ML pipelines, statistical modeling, handling structured and unstructured data, Project Management, ETL, Expertise with SQL/PostgreSQL/Snowflake, Agile, no-SQL databases-MongoDB, Cloud technologies, DevOps, IoT, Testing and so on

### **EDUCATION**

**M.Tech**(ME). in Thermal & Fluids Engineering from [National Institute of Technology, Karnataka, India](#) in 2014 with GPA 7.4

**B.Tech**(BE). in **Mechanical Engineering** from [Govt. Engineering College, Thrissur, India](#) in 2011 with GPA: 7.3

### **ARTICLES/PUBLICATIONS**

- [How to Build a CI/CD MLOps Pipeline \[Case Study\]](#)
- [Deploying Computer Vision Models: Tools & Best Practices](#)
- [Local Large Language Models \(LLMs\) for Natural Language Processing\(NLP\) Tasks](#)
- [Active-learning-strategies-tools-use-cases](#)
- [Popular Optimization Algorithms in Machine Learning-A brief walkthrough | by Arun C John | Oct, 2021 | Medium](#)