

Moulya Pradeep

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Results-driven AI Software Engineer with **10+ years of experience** in enterprise software development, system architecture, and distributed systems. Extensive expertise in **Python, Java**, specializing in **machine learning, data modeling, and business intelligence**.

Deep knowledge of **ETL (Extract, Transform, Load), OLAP (Online Analytical Processing), data warehousing, and business intelligence reporting**. Skilled in developing **scalable data pipelines, performance management applications**, and real-time analytics solutions.

Expert in **Machine Learning Model deployment**, AI-powered decision-making, and developing **end-to-end ML applications**. Passionate about AI-driven automation and intelligent data solutions.

Expert in **Database Administration (DBA)** with hands-on experience in **Oracle Architecture, SQL/PLSQL, Performance Tuning, and Database Security**. Skilled in **Data Modeling, Backup and Recovery, Data Warehousing, and Microsoft SQL Server**. Proficient in **Unix/Linux database management, scripting, and cloud-based database solutions**.

EXPERIENCE

Professor in Data Analytics Department

Jan 2025 – Present

Southern Alberta Institute of Technology

Calgary, AB

- Teaching in the Software Development department, covering multiple subjects: **Python Programming, Data Modeling, Machine Learning, and Business Intelligence Reporting**.
- In Python Programming, focus on **core concepts** such as **Objects, Collections, Exception Handling**, and advanced coding practices.
- In Data Modeling, cover **database design principles, normalization, and schema creation** to ensure efficient data storage and retrieval.
- In Machine Learning, introduce students to **supervised and unsupervised learning**, model training, and evaluation techniques.
- In Business Intelligence Reporting, teach **data visualization, dashboard creation**, and insights generation using BI tools.
- Empower students with hands-on learning, real-world projects, and practical knowledge for end-to-end application development.

Java Team Lead

Jul 2020 – Aug 2023

Q2

Bangalore, India

- Developed an AWS application for **online customer onboarding** with Java backend solutions.
- Integrated KYC verification with third-party services to enhance security.

Senior Java Developer

Mar 2019 – Jul 2020

ITC Infotech Pvt Ltd.

Bangalore, India

- Erste Bank application offers **paperless onboarding and online transactions** for products like credit cards, savings accounts, and stocks.
- It uses **microservices** for continuous development and seamless integration.

Java Developer

Jun 2018 – Mar 2019

Capgemini India Pvt Ltd.

Bangalore, India

- GE Water Purifiers' application uses **advanced water softening algorithms for treating waste-water** in large boilers, enabling customers to monitor and purify water effectively.
- It features modules detailing the filtration process and the **percentage of purified water produced**.

Associate Java Developer

Apr 2014 – Jun 2018

MeritTrac Services Pvt Ltd

Bangalore, India

- An online assessment application evaluates candidates based on their **performance, featuring automated question generation, exam delivery, response recording, score calculation, and report generation**.
- Key responsibilities include implementing RESTful services, database design, unit testing, and providing live exam support, contributing to the project's **CMMI Level 3 certification**.

EDUCATION

Southern Alberta Institute of Technology <i>Post Graduation in Artificial Intelligence</i>	Calgary, AB <i>May 2024 – Dec 2024</i>
<ul style="list-style-type: none">Studied advanced AI concepts including machine learning, deep learning, and neural networks.Explored computer vision, natural language processing (NLP), and AI model deployment.	
Conestoga College <i>Post Graduation in Big Data and Machine Learning</i>	Kitchener, ON <i>Sep 2023 – Apr 2024</i>
<ul style="list-style-type: none">Gained expertise in data modeling, ETL (Extract, Transform, Load), and data warehousing.Studied OLAP (Online Analytical Processing), data architecture, and design for scalable solutions.Developed skills in Business Intelligence Reporting, analytics, and dashboard creation.Applied knowledge in an end-to-end Business Intelligence project.	
VTU University <i>Bachelor of Engineering in Computer Science</i>	Bangalore, India <i>2007 – 2011</i>
<ul style="list-style-type: none">Built a strong foundation in data structures, algorithms, and object-oriented programming.Studied core computing concepts such as database management systems, operating systems, and networking.Developed and implemented software projects using Java, C++, and MySQL.	

TECHNICAL SKILLS

Languages: Python, Java, SQL, Mysql, HTML/CSS, R
Frameworks: Flask, Streamlit, Spring, Spring Boot, Hibernate, JSP, JUnit, PyTest, Maven
Developer Tools: Jupyter Notebook, Anaconda, Git, Docker, VS Code, PyCharm
Libraries: TensorFlow, PyTorch, Scikit-learn, XGBoost, Hugging Face, NLTK, NumPy, Matplotlib

PERSONAL PROJECTS ON AI

AI Stroke Predictor <i>PyCaret, scikit-learn, NumPy, Matplotlib, Streamlit</i>	June 2024 – Aug 2024
<ul style="list-style-type: none">Developed a prediction model using supervised learning with a Random Forest classifier, achieving a perfect score of 100 on a Kaggle dataset.Conducted data preprocessing and feature selection to enhance model performance and improve prediction accuracy for stroke risk assessment.	
Conestoga AI Chatbot <i>Flask, PyTorch, Vector DB, RAG files</i>	Jan 2024 – Apr 2024
<ul style="list-style-type: none">Implemented NLP techniques to extract information from PDFs, using a vector database for efficient querying in response to user questions.Utilized RAG files to enhance chatbot performance with contextual information, enabling accurate responses based on PDF content.	