ADITYA NITURE

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EDUCATION

Illinois Institute of Technology, Chicago, IL, USA — Expected May 2025
Master of Science, Computer Science
Relevant Coursework: Artificial Intelligence, Machine Learning, Data Preparation and Analysis, Advanced Database Organization, Big Data, Design and Analysis of Algorithms

M.S. Bidve College of Engineering, Latur, IN — May 2022
Bachelor of Technology, Computer Science Engineering

SKILLS

- **Programming Languages:** Python, Java, JavaScript, SQL, Kotlin, Swift, TypeScript, R, C/C++, MySQL, Dart, HTML, CSS, MongoDB, Cassandra, Redis, MATLAB, Julia, Scala, C#, Rust, Go, PHP, Haskell
- **Data Science, Machine Learning & Big Data:** RAG, NLP, Deep Learning, MXNet, Deep Learning, Data Mining, Model Training, Predictive analysis, NumPy, Pandas, Scikit-Learn, TensorFlow, Keras, PyTorch, Algorithm Development, SMOTE, Jenkin, Model Training, Predictive Maintenance, Data Visualization (Tableau, Power BI), PostgreSQL, SQL Server, Spark, Hadoop, Apache, Matplotlib, Computer Vision
- **Web, Application Development & Frameworks:** Tailwind CSS, React.JS, Node.JS, Vue.JS, Angular.JS, Spring/Spring Boot, Django, Flask, RESTful APIs, Next.JS, GraphQL, AJAX, Hibernate, Express.JS, Ruby, SOA, Android Development (Android Studio), iOS Development (Swift, Xcode), Dart, Flutter, Kafka,
- **Cloud, DevOps & Tools:** Amazon Web Services (AWS), Google Cloud Platform (GCP), Azure, Docker, Kubernetes, Automation systems, Helm, Terraform, CI/CD Pipelines, Edge Computing, GitHub, Bash and Shell Scripting, Linux Systems, Airflow, Test Bench Setups, System Configurations, Troubleshooting, CAD tools

WORK EXPERIENCE

DATA SCIENCE INTERN

Ping Cares, Chicago, IL — January 2025 – Present

- Orchestrated deployment of a predictive emergency alert system operating **Python, machine learning models**, and **wearable sensor data** (gyroscope & accelerometer) to detect falls, increasing caregiver response time by **30%** and ensuring timely interventions.
- Formulated a voice-based medication reminder system leveraging **NLP models**, boosting adherence rates by **25%**, and introducing a sentiment-based check-in system deploying sentiment analysis to assess user well-being.
- Synthesized real-time data pipelines to process wearable device data, optimizing predictive health monitoring accuracy by **20%**, while automating analytics dashboards with **Power BI** and **SQL**, cutting down manual reporting efforts by **40%**.
- Refactored backend logic in **Ruby**, attaining a **15%** improvement in API response times, and integrated AI-driven enhancements into **Flutter-based** applications, elevating user engagement by **25%**.

DATA ENGINEERING INTERN

Swaraj Infotech, Pune, India — October 2021 - December 2021

- Devised a Python-based data pipeline, cutting data processing time **by 35%** and enabling quicker reporting and decision-making for government schemes.
- Strengthened data integrity by incorporating robust **validation techniques in MySQL**, accomplishing a **25% increase in data accuracy** and **reliability**, and designed dynamic, interactive dashboards with **Tableau** and **Power BI** to improve stakeholder visibility and decision-making.
- Engineered an efficient data archiving solution using **Python** and **MySQL**, reducing storage costs by **20%** while maintaining strict compliance with regulatory data retention policies, streamlining long-term data management and retrieval processes.
- Automated data management tasks with Python, significantly **simplifying manual effort by 40%** and freeing up the team to concentrate on key strategic initiatives.

PROJECTS

ONLINE SHOPPERS' PURCHASING INTENTION — September 2024 – December 2024

- Analyzed online shopper behavior using machine learning models, including **Random Forest** and **XGBoost,** succeeding a **15% increase in prediction accuracy** for purchase intention by addressing data imbalance through **SMOTE** and employing advanced feature selection techniques for optimal model performance.
- Implemented unsupervised learning algorithms **K-Means** and **DBScan** to identify customer behavior clusters, leveraging **PCA** and **t-SNE** for dimensionality reduction and developing actionable visualizations of purchasing patterns, which led to a **20% improvement in customer segmentation insights.**

LIVE NEWS FETCHING APPLICATION — May 2024 - July 2024

- Engineered live news app with **Flutter** and **Dart**, consolidating **real-time updates** from multiple sources and demonstrating expertise in Android development.
- Incorporated user-friendly features **search, bookmarks, and category-based retrieval** and **revamped UI performance** with libraries and image caching.
- Boosted user experience through **smooth navigation, responsive design,** and **Android security features**, connecting to back-end services via **RESTful APIs** and applied **Git, OOP,** and **Agile methods.**

MDA-EFSM GAS PUMP SYSTEM — January 2024 - April 2024

- Developed and implemented a Meta-Data Augmented Extended Finite State Machine (MDA-EFSM) for a gas pump system, honing **dynamic payment** and **fuel type selection processes by 25%**, decreasing transaction complexity, and **improving system scalability** for real-world applications.
- Designed and tested class structures for **multiple gas pump configurations (GasPump1 and GasPump2)**, attaining a **30% improvement in code modularity** and **reusability** by synthesizing payment methods**,** fuel type selection**,** and receipt generation leveraging Object-Oriented Design principles and the Strategy Pattern.

AIR QUALITY PREDICTION — February 2024 - April 2024

- Devised a high-accuracy air quality prediction system focused on PM2.5 levels, employing machine learning models such as **Random Forest, LSTM,** and **ARIMA.**
- Executed thorough **data cleaning** and **preprocessing techniques** to ensure high-quality inputs, significantly elevating system's prediction accuracy by **15%**.

HOTEL & CLUB MANAGEMENT — April 2023 - June 2023

- Built a **full-stack web application** with **Java Enterprise Edition** and **Angular** for hotel and club management, streamlining operations and boosting overall efficiency by **30%**. Optimized database queries using **SQL** and **Hibernate**, improving data retrieval performance and decreasing server load by **20%**.
- Increased user engagement by **25%** through an intuitive**, responsive UI**, and improved retention rates by **15%** with personalized offers and loyalty programs.

CERTIFICATIONS

- IBM Data Science Professional Certificate — June 2024
- Full Stack Development from SEED Infotech — July 2023
- Java Core and Advance from Edu CADD — March 2021
- Python Bootcamp from Udemy — February 2021