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, PHP, Scala, C#, Rust, Go
- **Frameworks, Application Development & Web:** 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, Android Development (Android Studio), iOS Development (Swift, Xcode), Dart, Flutter, Kafka
- **Data Science, Machine Learning & Big Data:** Deep Learning, NumPy, Pandas, Scikit-Learn, TensorFlow, Keras, PyTorch, RAG, NLP, Algorithm Development, SMOTE, Model Training, Predictive Maintenance, Data Visualization (Tableau, Power BI), PostgreSQL, SQL Server, Spark, Hadoop, Apache, Matplotlib
- **Cloud, DevOps & Tools:** Amazon Web Services (Lambda, S3, SQS), Google Cloud Platform, Azure, Docker, Kubernetes, Automation systems, Helm, Terraform, CI/CD Pipelines, Edge Computing, GitHub, Bash Scripting, Linux Systems, Airflow, Microservices, Test Bench Setups, System Configurations, CAD tools
- **Agile Development Methodologies:** Scrum, Sprints, Kanban Boards, Jenkin, Spinnaker, JFrog, Jira, Extreme Programming (XP), Agile Modeling

WORK EXPERIENCE

SOFTWARE ENGINEER INTERN
Ping Cares, Chicago, IL   January 2025 - Present
- Spearheaded enhancement of mobile application using **Flutter**, introducing features that allow elderly users to set daily goals. Automated trivia updates, simplifying manual intervention by 40% and revising workflow efficiency, contributing to a **25% boost in user engagement** while ensuring accessibility standards.
- Revamped backend systems utilizing **Ruby**, succeeding a **15% reduction in API response times** and significantly improving reliability of critical services.
- Devised and executed advanced data processing pipelines and machine learning models to analyze wearable device data, enabling actionable insights for elder safety and wellness. These efforts enhanced predictive capabilities by **20%**, facilitating better monitoring and proactive interventions for critical health events.
- Boosted smartwatch usability by developing and deploying a real-time alert system for fall detection leveraging **gyroscope** and **accelerometer sensors**, **Python,** and **machine learning algorithms**. This innovation increased caregiver response efficiency by **30%**, ensuring timely interventions and improved elder safety.

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**, attaining a **25% increase in data accuracy** and **reliability**, and designed dynamic, interactive dashboards with **Tableau** and **Power BI** to enhance stakeholder visibility and decision-making.
- Engineered an efficient data archiving solution using **Python** and **MySQL**, diminishing 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 cutting down 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,** achieving 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.
- Performed 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**, integrating **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.
- Enhanced 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, optimizing **dynamic payment** and **fuel type selection processes by 25%**, reducing transaction complexity, and **overhauling system scalability** for real-world applications.
- Designed and tested class structures for **multiple gas pump configurations (GasPump1 and GasPump2)**, achieving a **30% improvement in code modularity** and **reusability** by integrating payment methods**,** fuel type selection**,** and receipt generation using Object-Oriented Design principles and the Strategy Pattern.

AIR QUALITY PREDICTION   February 2024 - April 2024
- Created 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, 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**, enhancing data retrieval performance and decreasing server load by **20%**.
- Increased user engagement by **25%** through an intuitive**, responsive UI**, and revamped 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