

# Alok Deka

Software Engineer

Guwahati, Assam

Email: deka.alok@gmail.com

Phone: 7002337118

LinkedIn: <https://www.linkedin.com/in/alokdeka/>

---

## PROFESSIONAL SUMMARY

Results-driven Software Engineer with over 4 years of experience, specializing in Data Engineering, Analytics, and Cloud Engineering. Proven track record in designing and developing scalable web applications and robust data solutions.

- Extensive hands-on experience with data platforms and cloud technologies, including DBT, Snowflake, AWS, and Apache Airflow.
- Skilled in building and optimizing scalable data pipelines for efficient data provisioning and analytics.
- Proficient in Apache Spark, DBT, and Snowflake, with strong programming expertise in Python, Java, C/C++, and SQL.
- Experience supporting Arena and Airflow-based data workflows and automation.
- Strong experience in developing full-stack web applications using Laravel, React, NodeJS, and WordPress.
- Proficient in creating responsive front-end interfaces with HTML5, CSS3, Bootstrap, JavaScript, and React.
- Strong interpersonal and communication skills with a collaborative approach to working with stakeholders, cross-functional teams, and clients.

## SKILLS

- **Big Data/Cloud:** Snowflake, DBT, Airflow, Databricks, Hadoop, Spark, Hive, AWS S3, EMR, MWAA
- **Programming:** Python, JavaScript, SQL, Shell Scripting, C/C++, TypeScript
- **Web:** HTML5, CSS3, JavaScript, jQuery, React, WordPress, PHP/Laravel, NodeJS, Next.js, FastAPI, Tailwind CSS
- **Dev/OS:** Visual Studio Code, Jupyter Notebook, Windows, Linux, Docker, Git
- **Databases:** Oracle, MySQL, MongoDB, PostgreSQL, ChromaDB
- **AI/ML:** Ollama, LLaMA, Streamlit, LangGraph, Vector Databases, RAG (Retrieval-Augmented Generation)
- **Soft Skills:** Communication, Teamwork, Documentation, Agile/Scrum

## EXPERIENCE

**April 2023 – Present, TrieDatum**

**Project: Alexion Operations – Data Products**

*Environment: Snowflake, DBT, MWAA (Airflow)*

- Analyse the SQL requirements provided by the business, clarifying any doubts or questions with the Alexion IT and business teams.
- Adhere to all Alexion IT standards throughout the project lifecycle.
- Convert the SQL to the DBT model.

- Develop and maintain data products using DBT and Snowflake, ensuring high-quality data provisioning.
- Monitor and optimize DBT models for enhanced performance and efficiency.
- Manage Airflow DAGs to automate and orchestrate data workflows.
- Collaborate with stakeholders to understand business needs and translate them into scalable data solutions.
- Ensure data integrity, validation, and governance across all data products.
- Prepare design documents and Lean Canvas for Collibra to support data governance and cataloguing initiatives.
- Create conceptual models to define and visualize key business entities, relationships, and data flows.
- Perform comprehensive end-to-end testing of solutions.
- Collaborate closely with the Alexion IT and ADP support teams for a smooth handover, providing all necessary project documentation and ensuring a successful production deployment.

### **Project: BofA Product Support**

*Environment: Arena*

- Provide troubleshooting and technical support for the Arena platform, ensuring smooth operations.
- Handle incident management in JIRA, resolving tickets efficiently as needed.
- Collaborate with both customers and internal teams to diagnose and resolve technical problems.
- Debug logs, analyse system failures, and apply fixes to maintain platform stability.
- Assist in a Spark upgrade, ensuring compatibility and optimizing system performance.

### **Project: Alexion DBT Migration**

*Environment: Airflow, DBT (Core → Cloud)*

- Manage the migration from DBT Core to DBT Cloud, ensuring a smooth transition with minimal impact on existing workflows.
- Update and refactor Airflow DAGs to trigger DBT Cloud jobs, ensuring accurate execution and robust monitoring.
- Conduct thorough validation and testing of DBT models post-migration to maintain data accuracy and consistency.
- Collaborate with cross-functional teams to troubleshoot migration challenges and optimize workflow performance.

### **Project: Alexion Managed Services**

*Environment: Arena, Airflow, EMR, AWS*

- Monitor customer environments on Arena and Airflow, proactively identifying and mitigating potential business-impacting issues.
- Ensure smooth operation of all products and services on the platform, addressing concerns such as high space consumption, memory usage, and EMR node failures.
- Conduct biweekly platform maintenance to enhance system stability and performance.
- Monitor and rerun failed workflows, ensuring seamless execution of all platform workflows.
- Prepare and distribute twice-daily status reports on scheduled workflows and DAGs.
- Debug logs of failed workflows, collaborate with the support team for resolution, and raise JIRA tickets for any incident.

- Manage and resolve infrastructure and application issues, taking full ownership of tickets until closure.
- Participate in team-wide shift rotations to ensure continuous support coverage.

**Project: DocuRAG: Document Analysis Platform**

*Environment: React, FastAPI, PostgreSQL, ChromaDB, Ollama, LLaMA 3.2, Docker, Nginx, Python*

- Conceived, designed, and implemented a comprehensive document analysis platform combining modern web technologies with local LLM integration for privacy-first AI-powered search.
- Engineered a full-stack solution with React frontend and FastAPI backend, enabling users to upload, organize, and query documents using natural language without external API dependencies.
- Integrated ChromaDB for efficient vector embeddings and document storage, coupled with Ollama and LLaMA 3.2 for local language model processing ensuring complete data privacy.
- Developed containerized architecture with Docker for seamless deployment, including PostgreSQL for user management and document metadata storage.
- Applied solution for research analysis, document management, knowledge base creation, and educational tools requiring intelligent document search capabilities.
- Addressed challenges in vector search optimization, local LLM configuration, and multi-format document processing (PDF, TXT, DOCX) to deliver responsive user experience.

**Project: TokenSage: Hybrid LLM Agent**

*Environment: LangGraph, Streamlit, OpenAI ChatGPT, Local LLMs (Ollama, LLaMA/Mistral), Python*

- Conceived, designed, and implemented a hybrid AI solution to balance premium LLM usage costs with response quality.
- Engineered an agent that first queries ChatGPT with minimal token usage for concise outputs, then passes those to a local LLM for expansion or enrichment.
- Integrated local models (e.g., via Ollama) to run on-premises, enabling cost-efficient, flexible, and privacy-enhanced content generation.
- Developed logic for seamless orchestration between API-based and local LLM responses, ensuring high-quality, scalable output across use cases.
- Applied solution for technical documentation, customer support automation, and educational tools requiring deep, customized responses.
- Addressed challenges in quality alignment, local model configuration, and interface design to optimize for user experience and resource efficiency.

**Project: DataGene**

*Environment: Java, Spring Boot, RabbitMQ*

- An internal project to generate a large amount of data.
- Designed and developed a comprehensive dashboard for managing environment variables and connections.
- Implemented APIs in Java with robust error handling and detailed logging mechanisms.
- Ensured secure data storage and retrieval in S3 storage, adhering to compliance standards.
- Conducted extensive testing to verify data accuracy and system reliability under multi-threaded operations.

## **Project: RAG Pipeline using Langchain**

*Environment: Langchain, Streamlit, Llama (LLM), Python*

- Built a RAG pipeline using Langchain to analyze Jira ticket dumps and predict error occurrences.
- Stored data parameters in Chroma vector database to enable efficient querying and result retrieval.
- Developed intuitive user interfaces for querying and retrieving error predictions seamlessly.
- Optimized the pipeline to enhance processing speed and ensure data accuracy.

## **July 2021 – April 2023, Ekodus Technologies**

### **Project: Full Stack Web & API Development**

*Environment: Laravel, React, NodeJS, MySQL, MongoDB, WordPress*

- Developed full-stack web applications to process, analyze, and visually present complex datasets for improved user experience and decision-making.
- Built RESTful APIs using Laravel and NodeJS to support seamless integration with mobile and web applications.
- Designed and implemented responsive front-end interfaces using HTML5, CSS3, Bootstrap, JavaScript, and React.
- Developed and customized E-commerce websites using WordPress, ensuring responsive design and optimized performance.
- Integrated MongoDB and MySQL databases to efficiently manage structured and unstructured data.
- Collaborated with cross-functional teams to gather requirements, define architecture, and deliver high-quality solutions.
- Conducted unit testing and debugging to ensure the reliability and maintainability of the applications.
- Participated in code reviews and Agile development cycles to ensure timely delivery and adherence to best practices.

## **September 2020 – June 2021, Riverrun Digital**

### **Project: Full Stack Web Application Development**

*Environment: Laravel, MySQL, React, HTML5, CSS3, Bootstrap, JavaScript*

- Developed full-stack web applications using Laravel and React to process, analyze, and visually present data-driven insights.
- Designed and built responsive front-end interfaces with HTML5, CSS3, Bootstrap, JavaScript, and React, ensuring cross-browser compatibility and mobile responsiveness.
- Integrated MySQL for efficient data storage, retrieval, and management across various application modules.
- Implemented authentication, role-based access control, and secure data handling using Laravel's built-in features.
- Collaborated with stakeholders to gather requirements, refine user stories, and deliver high-impact features in iterative sprints.
- Conducted testing, debugging, and performance tuning to ensure high application reliability and user satisfaction.
- Participated in Agile ceremonies, code reviews, and team discussions to continuously improve development workflows and code quality.

## **EDUCATION**

- Master of Science in Information Technology, Gauhati University, Guwahati, Assam

## **CERTIFICATIONS**

- Diploma in Information Technology, NIIT – 2013
- Snowflake, Udemy – 2023
- DBT (Data Build Tool), Udemy – 2024

## **KEYWORDS FOR ATS**

Snowflake, DBT, Airflow, AWS, S3, EMR, Python, SQL, Data Engineering, Pipelines, Full Stack, React, NodeJS, Laravel, MySQL, MongoDB, Hadoop, Spark, Collibra, JIRA, Agile, Analytics, Web Development, Hybrid LLM, Local LLM, TokenSage