

# NICHOLAS BIIY BWALLEY

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**Data Architect | Enterprise Data Architecture | Data Governance | Analytics Platforms | Banking Systems**

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**[LinkedIn](#), [GitHub](#)**

## PROFESSIONAL SUMMARY

I am Nicholas Bwalley a Data Architect with six years of experience designing, implementing, and governing enterprise grade data architectures that support analytics, regulatory compliance, and business transformation. I specialize in aligning business processes, application systems, and data platforms through well-defined logical and physical data models. I have strong expertise in architecting data pipelines, data lakes, and analytical platforms that handle large scale, high velocity data while maintaining data quality, security, and privacy by design. I work closely with business stakeholders, data engineers, BI teams, and technology partners to translate enterprise information requirements into scalable, governed, and future ready data architectures within regulated financial services environments.

## CORE TECHNICAL COMPETENCIES

### **Data Architecture and Modelling**

Enterprise Data Architecture, Conceptual Logical and Physical Data Models, Dimensional Modelling, Normalization and Denormalization, UML, Metadata Architecture

### **Data Platforms and Storage**

Data Lakes, Lakehouse Architectures, Analytical Data Stores, Historical Data Snapshots, Structured and Semi Structured Data Management

### **Data Integration and Pipelines**

Enterprise Data Pipelines, ETL and ELT Design, Service Oriented Architecture Integration, API Based Data Exchange, Event Driven Data Flows

### **Databases and Query Languages**

SQL, PL SQL fundamentals, Oracle, MySQL, MongoDB, Data Modelling and Optimization

### **Governance, Quality and Privacy**

Data Governance Frameworks, Metadata Management, Data Dictionaries, Enterprise Taxonomies, Data Quality Standards, Privacy by Design, Regulatory Compliance Awareness

### **Analytics Enablement**

Data Architecture for Business Intelligence, Advanced Analytics Support, Performance Optimization for Reporting and Dashboards

### **Technology and Development Foundations**

Java, JavaScript, HTML, CSS, Node.js, Application Architecture Understanding, Enterprise Systems Integration

### **Methodologies and Leadership**

Enterprise Architecture Practices, Agile Delivery, Stakeholder Engagement, Architecture Documentation, Cross Functional Collaboration

**Others: Touch Typist** with speeds averaging **120 Words Per Minute (WPM)**

## **PROFESSIONAL EXPERIENCE**

### **Data Architect and Analytics Platform Lead Remote March 2021 to Present**

- Designed and maintained enterprise level data architectures supporting analytics, reporting, and machine learning use cases across fintech and financial services clients.
- Developed conceptual, logical, and physical data models aligned to business processes, regulatory requirements, and long-term analytics strategies.
- Architected data pipelines and storage frameworks to ingest, process, and manage large volumes of structured and unstructured data efficiently.
- Designed data lake and Lakehouse environments capturing historical snapshots and data transitions to support advanced analytics and high-performance reporting.
- Defined and governed metadata architecture including enterprise taxonomies, data dictionaries, and naming standards to improve data discoverability and consistency.
- Collaborated with data engineers and BI developers to review dataset implementations, enforce data standards, and ensure architectural compliance.
- Analysed enterprise information needs from operational, analytical, and compliance perspectives and translated them into scalable data solutions.
- Promoted data architecture best practices and continuously evolved designs based on emerging technologies, cloud capabilities, and vendor platforms.

- Ensured data privacy by design across the data lifecycle, supporting secure access controls and regulatory alignment.

### **Software Engineer and Data Analytics Specialist Remote March 2019 to February 2021**

Supported the design and development of enterprise applications with strong emphasis on data modelling, integration, and analytics readiness.

Worked within service-oriented architectures to integrate multiple systems and data sources through well defined interfaces.

Collaborated with cross functional teams to gather requirements, document architectures, and support system enhancements.

### **Cybersecurity Analyst Intern | Senselearner Technologies Pvt., Remote | Sep 2023 – Dec 2023**

- **Conducted end-to-end security assessments** including network scanning, vulnerability analysis, and penetration testing of web applications, leveraging tools such as OWASP, Metasploitable and Hacksplaining to identify and mitigate **95% of critical threats**, enhance system resilience by **40%**, and deliver comprehensive remediation reports with actionable insights.

## **EDUCATION**

### **Sustainable Urban Planning and Development (Challenge Driven Education (CDE) project), Exchange Program**

KTH Royal Institute of Technology, Stockholm, Sweden | Aug 2024 – Jan 2025

### **BSc Business Information Technology (First Class Honours, GPA 3.8/4.0)**

Strathmore University, Nairobi, Kenya | Sep 2021 – Jun 2024

### **Diploma in Business Information Technology (Merit)**

Strathmore University, Nairobi, Kenya | May 2019 – Sep 2021

## **PROJECT HIGHLIGHTS**

- Led an AI-driven mobility optimization project in Viksjö, Sweden, using advanced machine learning algorithms to generate insights and inform municipal transport efficiency modeling.
- Built two profitable B2C SaaS products, [LinguaFlash](#) and [BlogFlow](#), both generated consistent Monthly Recurring Revenue (MRR) and sold them for a fortune.
- Published a research article called “AI-Powered Customer Churn Predictor” that uses Machine Learning in predicting the probability that a customer in the bank will default and leave the banking services or not based on his usage metrics. Check it out [here](#)

## **CERTIFICATIONS & ACHIEVEMENTS**

- Published Research: AI-Powered Customer Churn Predictor, ReadyTensor (Mar 2025)
- Dean's List Award Academic Year (2021–2022 & 2022-2023), Strathmore University.
- Certified Transcriptionist (120WPM on average)
- Weightlifter 3rd Place Award, Strathmore Sports Day (Aug 2023)

## **LANGUAGES**

- English (C2 – Native; Both Spoken & Written)
- Swahili (C2 – Native; Both Spoken & Written)
- French (C1 – Working Proficiency; Both Spoken & Written)

## **HOBBIES**

- Fitness Coach
- Professional Swimmer
- Table Tennis
- Pool Games & Bowling
- Speed Cuber & Card Magician.