Shemeer B.K

Data & Systems Engineering Architect | Azure & Power Platform Specialist

Contact

Address
Singapore 439069

Phone
87003534

E-mail
bk@shemeer.com

WWW
shemeer.com

Websites, Portfolios, Profiles

- https://www.linkedin.com/in/shemeerbk

Skills

- Data Architecture & Engineering

- MS Fabric, Data Factory, Data Lake & Synapse Analytics

A results-driven Data & Systems Engineering Architect with over 12 years of experience architecting and delivering high-impact digitalization solutions across the rail, aerospace, ICT, and life sciences sectors. Expert in designing and implementing scalable data platforms on Microsoft Azure (Fabric, Synapse, ADF) and driving enterprise-wide process automation with the Microsoft Power Platform. Proven leader in migrating legacy OT systems to secure cloud environments, achieving significant improvements in efficiency, system uptime, and cost savings.

Education & Certifications

Microsoft Certified: Azure Fundamentals

Training Completed: DP-203: Data Engineering on Microsoft Azure (2022)

Training Completed: AZ-204: Developing Solutions for Microsoft Azure (2024)

In Progress: Azure Data Engineer Associate, Microsoft Fabric DP-700

Work history

2022-11 - Current

Manager / Data & Systems Engineering Architect

SMRT Corporation Ltd, Singapore

- Promoted to Manager in 2025, assuming responsibility for team leadership, hiring, and performance management. Architected and led the digitalization strategy for critical engineering and operational functions.
- **Azure Data Platform Architecture**: Designed and deployed an end-to-end data platform using Azure Fabric, Synapse, and ADF to ingest and process complex OT and SharePoint data, centralizing it into an Azure Fabric SQL Warehouse for enterprise analytics.
- **Process Automation & Efficiency**: Delivered a suite of Power Platform solutions (Power Apps, Power Automate) for inspections, risk management, and emergency response, driving

- Data Modeling & Warehousing (Snowflake, Azure SQL)

- PySpark, SQL Optimization, Python (Pandas)

- Automation & Business Intelligence

- Microsoft Power Platform (Power Apps, Flows, Power BI)

- Business Process Automation (BPA)

- End-to-End Solution Design

- Systems Integration & Security

- Secure OT System Cloud Migration

- Cybersecurity & IAM / RBAC

- IoT/4G/5G Gateway Integration

- API Orchestration & Network Architecture

- Team leadership

- Operations management

- Strategic planning

adoption by over 300 users and achieving a >90% reduction in manual work.

- **BI & Analytics Delivery**: Engineered and launched mission-critical Power BI dashboards for defect monitoring, leakage analytics, and incident triage, integrating GeoJSON rail map overlays to provide enhanced operational intelligence.

- **Cloud Migration & Cybersecurity**: Led the secure migration of legacy Operational Technology (OT) systems to the cloud, ensuring full compliance with stringent transport cybersecurity standards and hardening system security.

- **Application Development**: Built and deployed secure internal web applications using PHP/Tailwind, integrating LDAP/AD authentication, session hardening, and comprehensive user audit logging.

- Flagship Projects – Bentley Optram Data Automation, PMO Inspections

- Developed a C#/WPF application to fully automate the extraction and processing of critical track geometry data, reducing data preparation time from 3 days to under 2 hours.

- **Received the Trains Kaizen Award** for the project's significant digitalization impact and for enabling daily defect reporting in the cloud.

2018-09 - 2021-05	**Principal Equipment Engineer – Manufacturing Services**

Rolls Royce Singapore Pte Ltd, Singapore

- Achieved over **SGD 8M in cost avoidance** by leading targeted control system upgrades on critical furnace equipment, preventing costly replacements.

- **Reduced critical machine defects by 60%** and improved overall equipment uptime by implementing a data-driven predictive maintenance program using Maximo and VBA automation.

- Engineered a novel wet sandblasting fixture that improved operational safety and generated **SGD 56K in annual cost savings**.

2017-08 - 2018-08	**Application Consultant / Technical Project Manager**

NCS Pte Ltd, Singapore

- Successfully delivered the JTC Smart Estate & Building Operations System (J-OPS) across 39 buildings, integrating disparate building management systems.
- Architected the Azure API Management layer to facilitate seamless integration between Facility Energy Management Systems (FEMS) and the central ICONICS platform.
- Designed and deployed a high-availability SQL cluster and ICONICS dashboards for real-time energy and fault monitoring.

2013-02 - 2017-07

Technical Specialist / Test Trainer

Sciex Pte Ltd, Singapore

- Earned **multiple Continuous Improvement Awards** for developing and deploying full-stack applications (C#, SQL, VBA) that solved critical business needs, including:
- A GHS-compliant chemical management and labeling system.
- A product traceability and quality control application for manufacturing.
- A comprehensive training, certification, and skills tracking platform.

Education & Certifications

2008-04

Diploma: Mechatronics Engineering

Temasek Polytechnic - Singapore