# Database Developer, Systems/Data Architect & Dev Lead

## Thought Leader Delivering Innovative IT Solutions for Complex Business Problems

- Application / Data Architect ■ Application Development
- Back End DB Developer ■ Agile Scrum & Full SDLC ■ Multiple Programming

Languages

- Multiple Data Base vendors
- Application DBA
- Data Warehousing
- Data Modeling: Entity Relational, RE/PE Fund Accounting Anchor; Current, Temporal, Bi-Temporal
- Data Governance
- Systems Integration

- Computational Finance
- **■** Business Process Analysis
- Alternative Investments
- Client Report Design
- Business Analysis and

Requirements

LinkedIn: Profile **Software Patent:** <u>US 8055694 - Modular Investment Position Calculation</u>

**Recent:** Trainings and Certifications More Details:

Highly accomplished Application Developer and Tech Lead with the emphasis on the Back-End and Data Base as a foundation for a solid and robust implementation, and extensive technical and business expertise. Experienced in leading multicultural onshore/offshore development and support teams; Strengths include: business analysis, data modeling, application DB design and development, financial computation (waterfall), application lifecycle management, database and data warehousing technologies. problem solving, innovation thinking. Multilingual in English and Russian.

## **Systems, Tools and Technical Proficiencies**

Windows, UNIX Platforms / OS:

Oracle; Sybase; MS SQL Server; Ingres, MS Access Databases:

Business Objects; COGNOS Reporting/BI: Data Modeling: **ERWIN**. ER-Studio. UML:

DW and ETL tools: SNOWFLAKE (Badges), DATA STAGE, INFORMATICA

SQL; PL/ SQL; T-SQL; UNIX Shell, Python, Java Script; C / C++, Java; Visual Basic; HTML, Languages/Tools:

XML; GIT/GITHUB, CLEARCASE, PERFORCE.

#### **Professional Experience: Accomplishments and Achievements**

Vice President State Street (Princeton, NJ)

Nov-2018 - Present

Lead developer. Implementing Data strategy solution for Private Equity (PE) and Real Assets (RA) data Integration and Data Warehousing, using Enterprise-wide data Service Platform (ESP), Ensure that the data is fed from Fund Accounting, Portfolio Management, General Ledger and other internal systems, integrated, transformed, enhanced and fed or presented in a holistic unified view to the Business and diverse groups of Clients.

- Design and implement ESP structures, objects and transformations from data inception to presentation addressing evolving Business data and reporting requirements. Maintain feeds from variety of sources (ORACLE, SYBASE, MSSQL) and feed methods (Golden Gate, SSIS with file Transfer, Direct Db Connections, etc.) supported by ESP. Maintain physical layer (indexes, partitions) to enhance performance.
- Enhanced SSIS Packages and MS SQL extracts Stored Procedures ensuring that multi-million records INVESTRAN Feed files are partitioned/split into manageable chunks for efficient asynchronous and parallel consumption by ESP.
- Enhanced PE INVESTRAN Feeds files processing UNIX Shell Script ensuring Chronological order of file processing, effective Error Condition handling and efficient Notifications.
- Designed and implemented Data Cleanup process for PE ESP DB tables for trimming AsAt bi-temporal dimension using ORACLE Partition Swap functionality.
- Designed and implemented an ESP data flow and Feeds for Real Assets (RA) Trial Balance Report that included Data Stage replication from RA Core DW to the Staging Sybase environment, Golden Gate Feed to ESP, ESP Subject Area Categories and Marts, ESP IRD reporting.

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#### State Street (Princeton, NJ)

Feb 2012 - Nov-2018

System and Data Architect, Technical Leader of a team of onsite and offsite/offshore developers. Enhanced and maintained the Real Estate and Private Equity Investment Fund Accounting Platform (FACTS). The platform currently supports corporate clients such as Morgan Stanley, with total AUM ~30 Billion USD across multiple funds. The system efficiently handles complex Limited Partnership Agreements (LPA) Investor-level calculations with large volumes of detail transactional data. It integrates with fund-level ledger and investor services subsystems.

- Provided consistent and coordinated design solutions across all subsystems (GUI, Calculation Engine, ODS with Reference Data, Reporting Data Warehouse), lead and hands-on participated in Back-End development.
- Designed ODS Data Model for Core functionalities, Reference Database Data Model, and Reporting Data Warehouse Data Model (ERWIN).
- Designed and implemented (ORACLE, PL/SQL, ORACLE SCEDULER,...) Reporting Data Warehouse, Including Dimensions ETL, Dimension maintenance, DW data feeds, and DB maintenance jobs. Responsible for all aspects of the DW subsystem, including escalated production support, maintenance, data administrating, etc. Specifically:
  - DW data model accommodates all variety of historical data (migrated from prior system) and FACTSgenerated data. The foundation is a standard Star Schema which combines Fact Tables (by data level) with common SCD Dimensions.
  - The Star Schema model is extended to accommodate Dimension-Only reporting and snow-flake or profile type details.
  - Dimension Bi-Temporal design allows for "as of Now" and/or "as of point of time" reporting.
  - Designed and implemented Automated Fact Tables Transformations to accommodate Fund Investor Splits and Merges. System handles this via Reporting Solution and Historical transformations via Data Solution with Audit Trail.
  - Designed and implemented the DW loads infrastructure (custom ETL) to deliver FACTS-generated data to DW for reporting. The infrastructure allows for near-real time data delivery.
  - Lead design and implementation of DB maintenance jobs, including Mat view Refresh, DB tables, partitions, indexes and space maintenance for ODS and DW.
  - Designed and coded inter-system communication interfaces between subsystems. Designed structures for incremental DW Dimensions update by ETL. Designed and implemented ETL jobs in IBM Data Stage.
  - Provided input, guidance and support to BO reporting team in defining UNIVERSE for DW and structuring
    queries and reports. Ensured that different flavors of reporting are available for Ad-hoc power users: "As of
    Point of Time", "Dim as of now", "Dim as of History"...
- Initiated, coordinated and lead development and deployment of the Data Model, database Objects, Back-End code enhancements and new functionality reflecting on-going changes for existing and new clients.
- Lead team in design, implementation and rolling out a new Calculation Engine Platform (ORACLE, PL/SQL, XML, JBOSS, Micro Services, JAVA, and PYTHON) which provided the FACTS system with significant flexibility in quickly on-boarding new clients, while reducing the amount of new coding required. It greatly enhanced reusability of components and simplified implementations of client-specific Waterfall Calculations. The platform reduced the time required to on-board new clients significantly.
- Participated in functional requirements analysis/design sessions for upgrading FACTS to meet the evolving business needs of the existing funds and to on-board New Clients.
- Lead the SDLC cycles including QA/UAT test results analysis and PROD release planning.
- Participated in formal SCRUM Team as developer and/or SME. Wrote clear Stories, Tasks and Acceptance criteria for re-factoring efforts.
- Provided Client Business support 24X7. Collaborate with users on problems analysis and resolution.
- Analyzed Web GUI and Calc Engine performance to identify bottlenecks. Optimized system performance by tuning DB Queries and database backend PL/SQL code. Proposed and implemented DW enhancements for Financial Reporting performance.
- Partnered and cooperated with GUI and Reporting teams. Provided input, guidance and support in integration with DW and Calc Engine.
- Mentored new team members and assisted them in understanding the business and technology of the System.

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### Sr. Technical Lead/Architect Morgan Stanley (New York, NY)

1999 - Feb 2012

Principal architect of the Real Estate Fund Investor Level Sub Ledger, Calculations and Reporting system (*ABACUS*). It provided MS real estate controllers with an analytical and calculation tool for the MSREF family of Funds. Managed a team of onshore and offshore developers in re-engineering, implementation, enhancement and support of the system. Morgan Stanley patented the technology and it was a key Intellectual Property asset that was negotiated and acquired by State Street as part of the Fund Accounting transfer agreement.

From 2000 to 2012, the system scaled in Production Processing and Support from three funds to total of nine domestic and international funds, each with ever increasing functionality, complexity of algorithms, and volumes of data, with about \$10 billion of committed capital and assets under management. My contributions allowed the firm to accomplish this with minimal resources (3-6 people) and ensure stability, continuity, and consistency of the implementation and support.

- Collaborated with Fund Controllers to define, discuss and formalize user and system requirements. Presented
  models and processed feedback. Acted as the liaison between the IT teams and the business in defining
  deliverables based on IT resource availability and client deadlines.
- Lead Operational Data Store and Data Warehouse Data Modeling and Design for the FACTS project an upgrade and re-engineering in ORACLE of the original SYBASE–based system to accommodate increasing business complexity and data volume of the Global Funds.
- Designed and implemented ABACUS Data Base and Back-End functionality. Managed all tech aspects of the system, which included GUI (C++), End-User Data Load Interface (custom EXCELL Data Loader, VB), Calculation Engine (SYBASE T-SQL) and reporting via Distributed Data Warehouse interface.
- Provided Sybase DBA support for development and production environments of the MS Financial Controllers division's global multi-tier Distributed Data Warehouse hosting Equity Data, General Ledger, FX, REPOS, PNL, Balance Sheet, and multiple sub-legers, including ABACUS data.
- Developed and maintained ERWIN data models for the Distributed Data Warehouse Data Marts, along with T-SQL and Unix Shell Scripts for cross platform ETL transfers. Maintained AUTOSYS Jobs. Monitored and troubleshoot data feeds. Maintained metadata for the DW Reporting Client.
- IT Inventory tracking system for Y2K Analysis and Remediation: application and database design and coding.

#### **Education**

Graduated with honors Gubkin Russian State University of Oil and Gas, USSR. **M.S.**, Maj.: **Computer Science**, Min.: **Applied Mathematics** 

#### **Recent Trainings**

#### **Executive Linked-In Endorsements**

- Business Analysis
- Attention to Details
- Technical Expertise
- IT Expertise
- Product Knowledge
- Strong Work Ethic
- Client Focus
- Domain Expertise
- Problem Solving

Vlad has a unique ability to analyze both business and technical problems in a manner that always identified core issues and efficient solutions....

George Pillepich, Former SVP Client Business Solutions at State Street. Vlad's Former colleague, PO.

I worked with Vlad for 10 years. Each of those years my admiration for his IT skills and business knowledge has grown without fail. ....

Joe Rago Former SVP Alternative Investment Services at State Street. Vlad's Former Manager.

Vlad was the bedrock of our engagement with the outsourced fund accounting provider ....

Maki Aruga, Former VP at State Street. Vlad's Former colleague, BA.

SME for the Fund Accounting Platform.

Lead Architect of the Calc. Engine which improves on-boarding of new Real Estate clients.

Lead Developer of the Investorlevel sub-ledger and calculation platform for the MSREF family of RE Funds.