

V L A D I M I R B E Y D E R

PRINCETON NJ, 08540

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DATABASE DEVELOPER, SYSTEMS AND DATA ARCHITECT, DEV LEAD

Highly accomplished application developer and tech lead with emphasis on back-end and database (DB) as a foundation for a solid and robust implementation. Extensive technical and business expertise. Experienced in leading multicultural onshore and offshore development and support teams.

Strengths include business analysis, data modeling, application DB design and development, financial computation (waterfall), application life-cycle management, database and data warehousing technologies, problem solving, innovation thinking. Multilingual in English and Russian.

Core Competencies & Technical Proficiencies:



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| <ul style="list-style-type: none">• Application and data architect• Application database administrator (DBA)• Agile Scrum, Kanban, Waterfall and full SDLC• Multiple programming languages• Multiple SQL and NoSQL database vendors• Data Modeling: entity relational, anchor, current, temporal, bi-temporal, graph | <ul style="list-style-type: none">• Application and Backend DB developer• Data warehousing (DW)• Data governance• Systems integration, ETL/ELT• Business analysis and requirements• Alternative investments, Real Estate (RE) and Private Equity (PE) fund accounting and calculations |
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SYSTEMS, APPLICATIONS & TOOLS

Databases:	Oracle, Sybase, Microsoft SQL Server, Ingres, MS Access; Exposure to MongoDB, PostgreSQL, AWS Redshift, AWS DynamoDb, Snowflake
Cloud technologies:	AWS: S3 storage, EC2, DynamoDb, Lambdas & Step Functions
Data Modeling:	Erwin, ER-Studio, Unified Modeling Language (UML)
DW, BI and ETL/ELT:	ALTERYX, SNOWFLAKE, Golden Gate, SSIS, DATA STAGE, INFORMATICA
Languages and Tools:	SQL, PL/SQL, T-SQL, UNIX Shell, Python, Java Script, C/C++, Java, Visual Basic; HTML, XML, Git/GitHub, ClearCase, and Perforce

PROFESSIONAL EXPERIENCE

STATE STREET, Princeton, NJ

5/2022 – present

Vice President, Lead Developer, SME.

- Lead developer on strategic re-tooling project for the Real Estate Fund Accounting Calculation System for Morgan Stanley.
- Defined the goal and the approach for modularization of the Calculation Workflows using Alteryx macros.
- Suggested decomposition of Distributions, NAV and FEE calculations into reusable modules for Alteryx implementation.
- Implemented Unfunded Commitment module and feed to Investor Correspondence module for Draw Down calculation.
- Designed a database to support business process around the Alteryx Flows and future feeds to SSCD.
- Participated in a continuous support and enhancement of the DHUB – State Street back-office trade settlement, reconciliation, valuation and accounting system.

BROADRIDGE, Jersey City, NJ
Dev Lead – Consultant**5/2021 – 5/2022**

Lead a team of data engineers in implementation of a data flows to deliver data from the company's Fee Calculation Revenue and Billing System (Revport) to a major Client. The ELT flows were configured within in-house server-less pipeline framework implemented in AWS.

- Monitored changes and technically reviewed the requirements for 7 flows that produce data for the Client.
- Provided day-to-day and technical guidance to 5 developers in the team working on the 7 flows.
- Documented constraints of the capacity and technical capabilities of the framework, performed POCs of the enhancements.
- Enhanced performance of the Extractions step of ELT by structuring processing in parallel in Shell Script cutting execution time from ~20 to under 3 hours.
- Designed and coded custom pipeline components:
 - AWS Redshift SQL scripts and stored procedures executed in the framework via Glue,
 - Shell Scripts (EC2, Bash, CLI) to accommodate remaining server-dependent Java components,
 - Python (Lambda) to augment Redshift, and to communicate via events with other systems/flows/steps,
 - Framework monitoring and notifications (Bash, EC2, DYNAMO DB CLI).
- Organized and participated in testing of the data transformations executed in the framework, using AWS Console to access Step Functions, Lambdas, Dynamo Db, EC2, S3, etc.
- Effectively served as liaison with upstream and downstream teams, and with BA, QA team.
- Coordinated with DEVOPS on integration, release planning and executions.
- Participated in planning and status reporting to senior management.
- Maintained JIRA Kanban board of the team tasks/stories and conducting daily stand-ups (No formal Scrum).
- Managed Git repository for the project components and technical documentation.

STATE STREET, Princeton, NJ**2/2012 – 4/2021****Vice President**
System and Data Architect, Lead Developer**11/2018 - 4/2021**

As SME and lead developer/architect implemented data strategy solution for private equity (PE) and real assets (RA) data integration and data warehousing, using enterprise-wide data service platform (ESP). Ensured data was fed from fund accounting, portfolio management, general ledger, and other internal systems, then integrated, transformed, enhanced, and delivered or presented in a holistic unified view to the business and diverse groups of clients.

- Designed and implemented ESP structures, objects, and transformations from data inception to presentation, addressing evolving business data and reporting requirements. Maintained feeds from a variety of sources (Oracle, Sybase, MS SQL), systems (Investran, Invest AI), and feed methods (Golden Gate, SQL Server Integration Services (SSIS) with file transfer, direct DB connection, Linked Server, etc.) supported by ESP. Monitored and maintained physical layer (indexes, partitions) to enhance performance.
- Enhanced SSIS packages and MS SQL extract stored procedures ensuring that multi-million records Investran feed files were partitioned and split into manageable chunks for efficient asynchronous and parallel consumption by ESP.
- Revamped PE Investran feed files processing UNIX shell script, ensuring chronological order of file processing, effective error condition handling, and efficient notifications.
- Suggested and tested the approach, and implemented data cleanup process for PE ESP DB tables for trimming AS-AT bi-temporal dimension using Oracle partition swap functionality, improving performance and reducing downtime.
- Devised 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, and ESP IRD reporting.

2/2012 – 11/2018

Lead a team of onsite, offsite and offshore developers. As SME and lead developer/architect Enhanced and maintained the real estate and private equity investment fund accounting platform handling multiple funds with total assets under management (AUM) of approximately \$30B USD, and performing complex limited partnership agreement (LPA) investor-level calculations with large volumes of detail transactional data.

Responsible for design, development, and support of the system's data repositories, interoperability, and integration of the component subsystems. Principal developer of the reporting data warehouse that interfaced BI subsystem and integrated with fund-level ledger and investor services subsystems. Ensured consistency and near-real time delivery of calculation results and dimension changes to the data warehouse.

- Provided consistent and coordinated design solutions across all subsystems (GUI, calculation engine, operational data store, reference data, and reporting data warehouse). Led and was a hands-on participant in all database layer development.
- Designed enhancements for the data models (Erwin) to align with the new fund and client requirements.
- Designed and implemented (Oracle, PL/SQL, Oracle Loader, shell scripting Oracle Scheduler) reporting data warehouse, including Dimension ETL, Dimension maintenance, DW data feeds, and DB maintenance jobs. Responsible for all aspects of the DW subsystem including escalated production support, maintenance, data administration, etc. Specifically:
 - Ensured accurate historical data migration from prior system.
 - DW data model accommodated all varieties of historical data (NAV and CVNI, drawdown, distributions, fees, expenses, etc.) and newly generated investor-level fund accounting data. At the DW foundation was a standard Star schema which combined fact tables (by data level) with common slowly changing dimensions (SCD).
 - The Star schema model was extended to accommodate dimension-only reporting and Snowflake or profile type details.
 - Dimension bi-temporal design allowed for “as of now” and/or “as of point of time” reporting.
 - Designed and implemented automated fact table transformations to accommodate fund investor splits and merges. System handled 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 allowed for near-real time data delivery.
 - Led design and implementation of DB maintenance jobs including mat view refresh, DB tables, partitions, indexes, and space maintenance for operational data store (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 DataStage.
 - Provided input, guidance, and support to BO reporting team in defining universe for DW and structuring queries and reports. Ensured different flavors of reporting were available for ad hoc power users: “As of Point of Time”, “Dim as of now”, “Dim as of History”, etc.
- Initiated, coordinated, and led development and deployment of the data model, database objects, backend code enhancements, and new functionality, reflecting on-going changes for existing and new clients.
- Led 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 system with significant flexibility in quickly on-boarding new clients, while reducing the amount of new coding required. This 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 and design sessions for upgrading fund accounting platform to meet the evolving business needs of existing funds and to on-board new clients.
- Led the SDLC including quality assurance (QA) and user acceptance testing (UAT) results analysis and production release planning.
- Participated in formal Scrum team as developer and/or subject matter expert (SME). Wrote clear stories, tasks, and acceptance criteria for re-factoring efforts.
- Provided client business support 24x7. Collaborated with users and production support team on problem 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, proposing and implementing DW enhancements.

- 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 in understanding the business and technology of the system.

MORGAN STANLEY, New York, NY**1999 – 2/2012****Senior Technical Lead and Architect**

Principal architect of the real estate funds investor level sub ledger, calculations, and reporting system. Provided Morgan Stanley (MS) real estate controllers with an analytical and calculation tool for the Real Estate Funds (MSREF) family of funds. Managed a team of onshore and offshore developers in re-engineering, implementation, enhancement, and support of the system. Ensured stability, continuity, and consistency of the implementation.

With minimal resources (three to six people), scaled up processing and support from three funds to a total of nine domestic and international funds, with ever increasing functionality, complexity of algorithms, and volumes of data, serving funds with about \$10B of committed capital and assets under management. Co-authored and patented the technology which was a key intellectual property asset acquired by State Street as part of the fund accounting transfer agreement.

2008 – 2012

- Collaborated with fund controllers to define, discuss, and formalize evolving user and system requirements. Presented models and processed feedback. Acted as liaison between IT teams and the business in defining deliverables based on IT resource availability and client deadlines.
- Led data modeling and implementation of core GUI and calculation engine functionalities, reference database, and reporting data warehouse (Erwin) for the upgrade and re-engineering in Oracle of the original Sybase-based real estate fund investor calculations and reporting system to accommodate increasing business complexity and data volume of the global funds.

2000 – 2008

- Designed and implemented databases and backend functionality for the real estate fund sub ledger and calculations engine. Reviewed, discussed, and clarified user and system requirements, and formalized tech specs.
- Led a team of three developers and managed all tech aspects of the system development and maintenance, which included GUI (C++), end-user data load interface (custom Excel 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 proprietary distributed data warehouse hosting equity data, general ledger, FX, REPOS, PNL, balance sheet, and multiple sub-ledgers, including ABACUS data.
- Developed and maintained Erwin data models for the MS proprietary distributed data warehouse data marts, along with T-SQL and Unix shell scripts for cross platform ETL transfers. Maintained Autosys jobs. Monitored and troubleshooted data feeds. Maintained metadata for the data warehouse's reporting client.

1999 – 2000

- Executed application and database design and coding of the IT inventory tracking system for Y2K analysis and remediation.

Other:

EXEL Reinsurance, Bermuda; MetLife, NJ; Republic National Bank, NY; Sandata Technologies, NY;

EDUCATION

Master of Science, Computer Science, minor in Applied Mathematics, with honors, GUBKIN RUSSIAN STATE UNIVERSITY OF OIL AND GAS, USSR

Patent, Recent Trainings and Certifications