Overview

After completing my undergraduate and graduate education, I became a registered architect in California (1983). I worked for various Bay Area architectural firms until 1996 (Skidmore Owings & Merrill, Heller & Leake among them), specializing initially in housing, then in high-rise and mid-level steel frame buildings.

In 1994 I began working on programming projects, which eventually led me into IT. Since then I have specialized in the design and implementation of both tactical and strategic data-related projects (SQL and C#) in response to specific business use-case scenarios. I have built deep experience with web-based application coding in C#, and RDBMS development on Microsoft SQL Server.

Significant Work Experience

Gensler | San Francisco, CA 2014-present | Data Architect

Overview

Gensler is a fifty-year-old design company that has grown organically from three employees in Arthur M. Gensler's garage to nearly five thousand employees in forty-seven offices in twenty countries. I was offered the role of Data Architect to anchor the IT department's data team, and to help make sense of the project, client, and employee data collected over the firm's history.

Activities

The company's Platform 4.0 Initiative is an effort to move a significant proportion of its operations to cloud-based Software As A Service (SAAS) components. An Integration Platform As A Service (IPAAS) tools will replicate System of Record data into a target data store for use in reporting and decision making. My role to date has included these activities:

- Co-design the Platform 4.0 System, and consult on the SAAS selection.
- Model the business domain. Ordinarily difficult, this task has held additional challenges at Gensler because no two individuals understand the business domain the same way.
- Design the Gensler Core Data store. Included in this task were the creation of logical and physical models, physical systems, system component selection.
- Engineer the Gensler Core Data store. Design and code the complex data transformations from Systems Of Record to replica, and from replica to target.

Relayhealth | Emeryville, CA 2007-2014 | Data Architect

Overview

The electronic transfer of Patient Health Information (PHI) in this decade offers significant challenges for Health Information Exchanges (HIEs) and repositories of Electronic Medical Records (EMRs) and the Always-On Enterprise.

Worked closely and extensively with consultants and knowledge experts to implement system enhancements such as problems mapping and drug mappings.

Familiar with HL7 and several terminology systems (RxNorm, First Data Bank NDDF Plus, Health Language, Medispan MedFile, SNOMED CT, ICD-9-CM, ICD-10-CM, LOINC).

Worked independently and with development teams, designing and implementing projects that address the challenges of acquisition, management and distribution of data within the Enterprise.

Roles

As the sole RelayHealth Data Architect I participated at the Architects Table in all system-related design activities. I have held various roles in this position:

- **Author Of Database Development Standards**
  Lead the high-level design and modeling efforts, and defined Best Practice guidance to Development Teams
- **Application Architect**
  Provided vision, high-level and detailed design, and support documentation for a ten-person Development Team
- **Database Department Manager**
  Managed and supervised the company's Database Administrators (DBAs)
- **Individual Contributor**
  Designed and implemented specific projects, many self-initiated, as an SME embedded in a Development Team.
- **Database Administrator (DBA)**
  Shared continuous responsibility for the Production Database, including release-related activities

Significant Projects

The Always-On Enterprise presents significant problems in Data and Systems Design. Recognizing the need to embrace Eventual Consistency, I designed and implemented several large scale initiatives that respond directly to the new requirements:

- **Service Broker Framework**
  This set of Operational Procedures wraps SQL Server's internal Service Broker functionality and provides developers with a clean, easy way to process internal database actions asynchronously.
- **Pub/Sub (publisher-subscriber) Layer**
  A system of related queues and rules engines that consume the Service Broker Framework, designed to route incoming messages to multiple recipients
- **ETL Framework**
  A flexible application framework that accepts developer plug-ins for importing, exporting, and distributing data across the Enterprise, and to external partners.

- **SQL Server Database Development Tools**
  Tools that transparently create index scripts, manage synonyms, and provide assistance in unit testing, supporting Best Practices and naming conventions
- **Database Administration Tools**
  Automation tools that dynamically create SQL Agent jobs to backup or restore databases, rebuild indices and statistics, and create table partitions on the fly

Selected Job History

Information Technology, 1995-present
- 2014-present | **Gensler**, San Francisco, CA |Data Architect | Architectural Design
- 2007 to 2014 | **RelayHealth,** Emeryville, CA | Data Architect | Health Industry
- 2006-2007 | **Triton Distribution Systems,** Sausalito, CA | Application Architect | Travel Industry
- 1995-2006 |**Contracting Application Programmer** (Rasbora Incorporated, self-owned S-Corp)

Building Architecture, 1981-1996
- **DES Architects**, Redwood City, CA
- **Skidmore, Owings & Merrill**, San Francisco, CA
- **Heller & Leake Architects**, San Francisco, CA

Education & Training

HL7 eLEARNING FUNDAMENTALS COURSE, 2010

RELAYHEALTH DEVELOPMENT CERTIFICATION MODULES
UI | Middle Tier | Service Layer | Database

CITY COLLEGE OF SAN FRANCISCO, 2001
Programming Courses | Oracle | C++ | Java

MASTER OF ARCHITECTURE, 1981
Virginia Polytechnic Institute of Technology, Blacksburg, Virginia

BACHELOR OF ARTS, Architecture, 1978
Washington University, St. Louis, Missouri