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**Objectives:** ✓ A project applying VLDB's(Data Warehouse/Marts) & Internet to build leading edge systems.  
✓ A project integrating new technologies(XML, Java,etc.) with complex VLDB'S (DWH/DM/ODS)

**Employment:**

7/97 to present	<b>Eliasz.com /Shark Technology/RCG/Alliance - Sr. Data Architect / DBA</b>
07/96 to 06/97	<b>Coopers &amp; Lybrand - Management Consultant</b>
03/95 to 06/96	<b>Ajilon Services - Management Consultant</b>
11/91 to 03/95	<b>Aston Brooke Corp. - Senior DBA</b>
05/91 to 10/91	<b>Computer Sciences Corp.- Senior Computer Scientist (RCAS)</b>
11/90 to 04/91	<b>Mindbank Systems - Consultant (CSC / RCAS project)</b>
04/89 to 11/90	<b>Cimage Corp. - Software Architect; Prod Devl. Mgr.</b>
11/88 to 04/89	<b>Merit Systems - Senior Consultant (Ford Motor Co)</b>
07/88 to 10/88	<b>Software Services - Consultant (Cimage Corp)</b>
03/85 to 06/88	<b>Ford Motor Co. (E&amp;PDS) - Senior Analyst</b>
09/81 to 02/85	<b>General Motors (GMISCA) - Programmer / Analyst</b>

**Expertise:** Product Development Mgr; Software Development Mgr (3-6 employees)  
**Data Architect / Database Administration / Data Modeling / CASE / Data Warehouse**  
Document Mgt. / Imaging / GIS  
Systems Administration / Programming / System Tools Devel. / **Internet/** Systems Integration

**Applications:** Oil Systems - Process Control, Oil Mgt, Refinery Mgt  
RCAS - Reserve Component Automation System (Large Defense Project)  
DFQ - Design for Quality; Engineer / Designer Checklists  
**PHARM. - IMS Health/DSS, FMC/Drug Discovery, BMS/Clinical Trial, Xybion/Pharma, Pathogens, GSK**  
UMTCS/CEPR -Tracks machine tools & their spare parts/ Parts Info & Design Tracking System  
SIGHT - Electric Utility Work Mgt/CIS/GIS System; Corporate Recall Information System (**realtime**)  
**E-Commerce - Biomed Marketplace Portal;** Truck Rental & Maintenance (JDBC/Servlets), Insurance  
**Data Warehousing - Credit Card VLDB(into ODS & DWH);**Unisys Enterprise DWH; Many Data Marts

**Operating Sys:**

UNIX - Sun Solaris, Sun O/S, SCO	IBM - VM/CMS, AIX, SP	<b>LINUX(Redhat 6.2/7.1/7.2),</b>
DEC - Ultrix, TOPS-20, VMS	Workstations - NT,2000,XP	Mac OS X, Win95/98
Honeywell - Multics, DTSS, Gecos	DG - Aviion (DG/UX),	
Prime, Sequent, Pyramid MPP	HP - HP-UX; Sun O/S (thru 5.7)	

**Databases:** ORACLE - **SQL\*Plus, PL/SQL, SQL\*Forms, RPT, PRO\*C & PL/1, SQL\*Loader, Discoverer3.1**  
✓**20 years** SQR, SQL\*Net(1,2,NET8), **Designer 9i**, RDBMS (**v2.0-9i**), Oracle9iAS,  
**with Oracle** JDeveloper/JDBC, PL/SQL Web Toolkit, Oracle Enterprise Mgr, Oracle Applications  
(**HR/Financials**),Data Mart Suite  
Informix - ISQL, ESQL, 4GL **Honeywell MRDS - Linus**

**Internet:** Java/JDBC/Apache /Tomcat/Javascript /HTML/CSS/Shell/Dreamweaver /Servlets/JSP/J2EE

**Case Tools:** Designer/2000(v1.0-9i), ERWin/ERX (2.5-3.5;some ModelMart), Casewise (thru CM 8e)

**Education:** Oakland University, Rochester, MI - BS (Comp. Sci.) - 1981; **MS (Comp Sci) - 1987**  
1981-present - Seminars, Symposia, & Classes ; **Presenter @ Devoug & IOUG**

**04/2005-present Alliance @ McNeil** – Oracle DBA, Data Architect. McNeil used my data modeling on new design projects and to perform application DBA work on both Validated and non-Validated systems, including theirs Sales Roster and Pharmaceutical Dashboard.

**Key Skills:** Oracle 9.2, KSH, Er/Win 4.1, Data Modeling, Sun OS5.8, PL/SQL, SQL, stored procedures /functions / packages/ db triggers, Unix shells, Toad.

**01/2005-04/2005 RCG @ Primavera** – Oracle DBA, Data Warehouse Developer. Primavera, required someone with strong data architectural, data warehouse, data modeling, DBA, and programming skills(KSH, SQL, PL/SQL) to help them with designing a DWH and developing the ETL for their DataWarehouse reporting requirements. Used Change Data Capture (Log Miner) to capture OLTP changes by reading from redo logs (not the tables). Implemented the CDC processing & ETL in staging tables & then replicated the data to a schema for near-real-time reporting & analysis on 30 minute intervals. Did data modeling, architecture, ETL programming, system integration, & DBA duties. Used Scrum/Agile Methodology on the project (an eXtreme Programming (XP) Methodology).

**Key Skills:** Oracle 9.2, KSH, Er/Win 3.5.2, Data Modeling, Sun OS5.8, PL/SQL, SQL, stored procedures /functions / packages/ db triggers, Unix shells, Sql\*Navigator 4.5/Toad, materialized view (replication); Agile Methodology.

**05/2004-12/2004 Shark Technology @ Glaxo Smith-Kline(GSK)** – Oracle DBA, Data Warehouse Developer. GSK, required someone with strong analytical skills, data modeling, DBA, and programming skills(KSH/Perl, SQL, PL/SQL and a bit of Java) to help them with maintaining their various DataWarehouses(Financial, Time/Projects, etc.). I helped them move from ordinary tables to partitioned tables. I also developed some code to load/unload BLOBS into/out of the database. I developed a completely automated db refresh in Unix shell scripts, using exp/imp, and some dynamic sql. I also wrote dynamic sql on two other ETL processes (to rebuild indexes, including partitioned/subpartitioned indexes and deal with the constraints) and a another refresh-like process involving PL/SQL. DBA duties on 2 DataWarehouses.

**Key Skills:** Oracle 8i, 9i, KSH, Perl 5.x, Sun OS 5.8, PL/SQL, SQL, stored procedures/functions/packages/db triggers, Unix shells, Sql\*Navigator 4.5, Java (1.4.x), JDBC(2.0), partitioning, blobs/clobs, automated refreshes.

**09/2003-04/2004 Eliasz-Solomon @ Bristol-Myers Squibb** – Oracle DBA and Internet Developer. Bristol-Myers Squibb(BMS) needed a highly skilled , broadly skilled Oracle expert to work on two diverse projects, requiring, DBA, PL/SQL, SQL, HTML, Java, Javascript, web applications, servlets, JSP, web servers/application servers, UNIX shells, and Pharmaceutical experience. The first project was a Public Disclosure system for controlling the public disclosure of sensitive trade information/products/compounds in journals, conferences, presentations or public postings (posters, etc.) without compromising intellectual property. The web application was built with Oracle RDBMS, Oracle 9iAS, PL/SQL Web Toolkit, HTML, Javascript & stored procedures to develop/present a data driven web application that was and generated dynamic web content to manage the public disclosure process. Developed new & enhanced existing functionality using PL/SQL, HTML, CSS, Javascript, SQL, stored procedures & deploy to an Oracle Application Server web server environment. Used SQL Navigator, Remedy, ClearCase tools to manage the software development, source code control process with an Oracle 8i back-end database. A large component of the process was providing enhancements due to the deployment of Internet Explorer(IE) 6.x company-wide & replacing Netscape 4.8. This involved dealing with Dynamic HTML, the WCCC Domain Object Model & handling the cross browser issues between 4.x and 6.x browsers & between Netscape & IE. My other project involved servlets / JSP written in Java, with HTML, Javascript, Unix shells to manage the presentation & updating of data through a web application(J2EE) & deploying to Oracle9iAS, with Oracle 9i db back-end. The application involved the Compound data & presenting/managing data related to a compound & its many internal, public & proprietary names across many countries.

**Key Skills:** Dreamweaver, HTML, CSS, Java, Javascript, PL/SQL, SQL, stored procedures/functions/packages/db triggers, Unix shells, Oracle 8i/9i, Oracle9iAS, servlets, JSP, JDBC, SQL Navigator, ClearCase, Remedy.

**2/2003-present Eliasz-Solomon @ various projects (see also below)** – Data Model Review for Xybio. I have been using Oracle Designer 9i & reviewing an externally created data model, making physical model recommendations for a Pharmaceutical/Clinical/Lab Management systems database. Installed/configured Oracle 9iR2 on Red Hat Linux Advanced Server 2.1. Developed a Java/JDBC web application using the Java Mail API to send Eliasz-Solomon Technical Newsletter/Postcards. Published Oracle & Data Warehouse white papers to the web site.

**Key Skills:** Dreamweaver MX, , HTML. CSS, Oracle 9.2, Red Hat Linux AS 2.1, Oracle Designer 9i, Data Modeling

**8/2002-2/2003 Eliasz.com @ Independence Blue Cross** – Was the project's Technical Architect. Did Business Process Modeling, systems analysis, Engineering diagrams, and collected the data and diagrams to produce meta data and drawings for an Enterprise-wide Application Architecture, which we published to the corporate Intranet(IWAY). I led a team of developers, established development procedures/standards, did business process modeling, Visio drawings and used Dreamweaver MX to do the initial prototype of the website to hold the Application Architecture.

**Key Skills:** Intranet, Dreamweaver MX, Visio, GIF's, Casewise Corporate Modeler 8e, HTML. MS Office, BPR

**4/2002-8/2002 Eliazs-Solomon @ FUSURA/AIG** – Was the company's Data Architect/DBA. Did the data architecture & production database administration. Used Oracle 8i(8.1.7), LINUX & Sun Solaris, AG Dynamo, Apache, Tomcat, to build & maintain the web interface for E-Commerce insurance web site! I managed, tuned, designed, deployed, development, QA, Production and Data Warehouse databases. I also design and develop feeds to partner on the Internet.

**Key Skills:** Oracle 8.1.7, Oracle Enterprise Mgr, **E-Commerce, JDBC, MTS, LINUX/Solaris, Data Warehousing, Materialized Views(snapshots).**

**3/2001-11/2001 Eliazs-Solomon @ GE Capital** – Was the project's Data Architect. Did the data modeling & basic system architecture design. We used Oracle 8i, Apache and JServ, with HTML forms and servlets(w/JDBC) to build an on-line e-commerce site. I established the SQL, JDBC standards and did the SQL & database tuning, DBA work. I used Oracle Designer & created the database objects (triggers & snapshots) & deployed the database objects to the back-end. Used Oracle's multithreaded server(MTS) to scale the number of Internet users to support 300 concurrent internet transactions. Did the tuning work for the Data Warehouse team. Taught modeling for Warehouses & how to take their design to a physical model complete with partitions, bitmap indexes, etc. E-commerce site used partitions to extract/load the data from an existing client/server application (that we were replacing with the E-commerce application) & to hold the largest table which had 3.5 Million records that was being accessed by the web interface!

**Key Skills:** Oracle v8.1.7, Oracle Enterprise Mgr, Oracle Designer 6.1, Data Modeling, **E-Commerce, JDBC, MTS, Partitions, Sun Solaris.**

**1/2001-3/2001 Eliazs-Solomon/Medispare**s - Medispare was a medical/biomedical Internet Marketplace portal whereby hospitals/biomedical companies could procure through the portal from OEM's, Mfr's, Parts & Services vendors and provide a community for the medical/biomedical professional community to share knowledge, procure equipment and services, interact professionally in a niche marketplace portal. This web site included auctions, catalog/shopping cart medium, and other Internet components that met Sun's J2EE architecture. The various Internet COTS components were integrated to meet the custom needs of Medispare while limiting the amount of custom software that needed to be written. I was the Data Architect responsible Catalog Data Acquisition and Loading, Engineering the Data components of the Technical Architecture to meet the functional requirements/specifications.

**Key Skills:** Oracle v8.1.7, Oracle Enterprise Mgr, Er/Win v3.5, Data Modeling, **Rightworks, Catalog/Shopping cart, OnDisplay, Internet Portal.**

**2/2000-8/2000 Eliazs-Solomon/Naviant** - Naviant was an internet company that did precision marketing & online registrations. I did data modeling (logical & physical modeling on VLDB's > 500GB). I also taught them how to use advanced Oracle8 features. I used Er/Win 3.5 & Model Mart, Sql\*Navigator, EZ/SQL tools to perform reverse engineering to start the logical modeling from the existing data model. I then finished a logical model, took it physical (adding scalable options such as partitions, bitmaps, etc.). The databases were an OLTP & an Operational Data Store(ODS). I also worked on the load process. Finally, I performed various DBA duties such as: tuning, capacity planning, rebuilding objects to scale, de-fragmenting & other db tuning, correcting Net8 configurations, etc. for all the Oracle db's. We were using various Sun O/S servers. I did a survey of Oracle's XML capabilities. I also installed Oracle's JVM (JServer) and wrote some Java Stored procedures for the web developers.

**Key Skills:** Oracle v8.1.6; Oracle Enterprise Mgr, Er/Win v3.5, Data Modeling, **Operational Data Store, VLDB(>1TB), PL/SQL, Sql\*Loader, Java, JDBC, Java Stored Procedures, Sql\*Navigator, Sun O/S 5.7.**

**1997-2004 Eliazs-Solomon/Various projects** - On an ongoing basis between large projects I work on small external projects and/or internal projects. Data model review for XYBION (pharmaceutical pathogen software). Just prior to last two projects (until 6/2002) I had been doing some JDBC programming of Servlets. I also did some tuning and survey of various databases including an Oracle Parallel Server on an IBM SP (IKON, Campbell Soup). We also did some database upgrades to Oracle8 and we also were responsible for moving databases and consolidating Unix servers. Attended Oracle's iDevelop Seminar and assisted in building our company's web-site using HTML. I am currently using Oracle tools to add dynamic serving of web pages to our company's web site. I was trained in JDeveloper (Oracle's Java IDE and deployment platform). I diagnosed and helped to fix ETL problems with Aetna US Healthcare's NYLCare Data Warehouse. I setup a web server(Apache) on LINUX with Oracle8i&9i, moved our website, written some HTML forms/CGI scripts and JavaScript to implement time reporting system for the Eliazs-Solomon, Java, JDBC/Servlets, Apache/Tomcat.

**Key Skills:** Oracle 8i/9i), Oracle Parallel Server v8, Designer 9i, Data Modeling, **Data Marts, VLDB(600GB), PL/SQL, Sql\*Loader, IBM SP, HTML, CGI, Apache, Tomcat, Javascript, JDeveloper 3.1-3.2, Java, JDBC, Java Stored Procedures, Servlets, Oracle for NT, Oracle Enterprise Mgr, Oracle App Server.**

**12/1999-2/2000 Eliazs-Solomon/4Anything.com** - 4anything.com needed a data mart to analyze traffic data. Did the data modeling & data architecture work in design & construction of the logical models, physical models, & physical database. Also built the Traffic Data Mart. Responsible for tuning/diagnosing. Installed & setup **Oracle's Data Mart Suite**.

**Key Skills:** Oracle 8i, Data Mart Suite, Data Modeling, Data Marts, VLDB, PL/SQL, Sql\*Loader. Web DB, Sun O/S.

**8/1998-8/1999 Eliaz-Solomon/UNISYS** - Did the data modeling & data architecture work in design/construction of the logical models, physical modeling, & physical database. In addition, to building the initial **Data Mart** (Sales) & integrating the Query Tools(Business Objects & Oracle Discoverer), I also tuned & diagnosed bottlenecks (usually network /ISS related, sometimes Oracle bugs). Launched other Data Marts & coalesced their feeds & standardized data elements. Most Data Marts were fed from Oracle Applications such as Oracle PA, Oracle Financials, & Peoplesoft. We used MS's ISS as the Web server. Took advantage of many version 8 features including table/index partitioning, bitmap indexes, STAR TRANSFORMATION, etc. to tune & enable complex OLAP queries. Finally, tuned online Oracle for NT databases & diagnosed problems with Web front-ends into UNIX & NT Oracle databases. I configured **Oracle's OADW tool for Oracle PA and Peoplesoft, Oracle Financials.**

**Key Skills:** Oracle v8.0.5; Oracle Parallel Query Option, Oracle Enterprise (UNIX), Oracle for NT, Data Modeling, **Data Marts**, VLDB(600GB), PL/SQL, Sql\*Loader, Oracle Enterprise Mgr, Oracle Designer/2000 v2.3, OADW. Multinational 24x7, & international data privacy concerns.

**2/1998-8/1998 Eliaz.com /COPELCO** - Developed the Data Conversion Methodology, managed the conversion team, data modeling, & the preliminary development of the data conversion framework. The project involved custom development of a Lease Administration system with interfaces to Oracle Financials. We brought data from an old OLTP HP/UX system & from ORACLE Financials & ORACLE HR databases to populate the Operational Data Store. The database was ~150GB on an Oracle for NT server utilizing Oracle's Web Application server for the front-end.

**Key Skills:** Oracle v7.3; Oracle Parallel Query, Oracle for NT, Data Modeling, **Operational Data Store**, VLDB, PL/SQL, Sql\*Loader, **Designer/2000 v1.3, Oracle HR, Oracle Financials.**

**8/1997-1/1998 Eliaz.com/PECO Energy** - Developed the PECO Data Warehouse & Data Mart strategies by writing white papers. Demonstrated the proof-of-concept of the White Papers by building a Data Warehouse lab demonstrating the various tiers & how the infrastructure would work. Once the proof of concept was built, I mentored with Data Architects to design Data Marts utilizing the Data Warehouse Workbench & Methodology. I also tuned a Data Mart for Oracle for NT (~75GB). We used Oracle on AIX & Oracle for NT.

**Key Skills:** Oracle v7.3; Oracle Parallel , IBM , Oracle for NT, Data Modeling, **Data Warehouse**, VLDB, Data Marts, Developed Warehouse Methodology, Data Pivoting, Oracle Name Server v2.0.

**6/1997-7/1997 Eliaz.com/Clark Shoes** - Developed a sales Data Mart. Wrote the stored procedures to populate the fact table using data pivoting techniques. We used Oracle for NT and PL/SQL.

**Key Skills:** Oracle v7.3; Oracle for NT, PL/SQL, **Data Mart**, Data Pivoting, ETL.

**7/1996-6/1997 Coopers & Lybrand** - A Data Warehouse Architect on a utilizing the latest hardware & software available to build a VLDB (1.0+ Terabytes of raw data!), Data Warehouse on an Massively Parallel (MPP) Unix platform for a credit card company(FUSA). Performed the Logical & Physical modeling, built the initial database, developing some of the Data Mgt. ETL Processes. Did the DBA duties from development thru deployment.

**Key Skills:** Oracle v7.2/7.3; Oracle Parallel Server, Pyramid MPP - Reliant(unix), Data Modeling, **Data Warehouse**, VLDB (3.5TB), ERwin/ERX 2.5, SUMMIT-D Methodology.

**3/1995-6/1996 Ajilon (formerly Adia)** - A Data Architect using CSC's CATALYST methodology to re-engineer the business processes of an electric utility(PPL). The database was a VLDB, with client/server & distributed technologies. My responsibilities were data modeling (Conceptual, Logical & Physical), data architecture & infrastructure. Performed hands-on DBA & CASE repository management (Designer/2000). Worked on the Work Management & GIS portions of the project. The work went from Business Area Architecture, to Business Systems Design, thru Construction Phase. The project was developed using off-the-shelf packages which we evaluated, went through package system design and gap analysis. Integrated the packages, migrated legacy data, & deployed the new technology in a staged environment.

**Key Skills:** Oracle v7.1/7.2; Oracle Parallel Server, CASE (Designer/2000; Casewise), SQL\*Net v2.1 (including NetManager & Oracle Names) , HP/UX; Catalyst Methodology (for BPR), Client/Server, ODBC.

**11/91-3/95 Aston Brooke Corp(now Full Tilt)** - I worked on three Oil systems & one Employee Scheduling system for **Mobil Oil**. The Oil systems from process control, to oil movement & mgt, to a refinery simulation and modeling. The employee scheduling involved 200+ employees across many shifts, with complex union rules for scheduling & overtime payment. I developed a Drug Discovery DB for **FMC**. At TPF&C, I was the DBA for 45-50 UNIX (v6) plus some DOS (v5) DBMS's & also Unix Administrator for 12 UNIX machines. I did Systems Integration to blend the technologies seamlessly. I was a v6 -7 DBA for **Bristol-Myers Squibb** where I installed DB\*Vision. I was the primary DBA(v6 & v7) at Ford Electronics plant for about 20 db's many realtime (5 24x7) At Ford we used Eco Tools to monitor the DB's. Lastly, I was a DBA for VLDB's used in **DSS at IMS America**. I evaluated ORACLE sites & tuned databases. I wrote many DBA scripts/code, did the initial installs of DB\*Vision & provided the shell scripts to make it "shrink wrapped".

**Key Skills:** Oracle v5,v6,v7, SQL\*Forms v3.0, SQL\*Loader, Pro\*C and realtime Vax C programming, SQR, PL/SQL, C /Kshell/Tcl/Tk/Perl/DCL scripts, & Lotus 1-2-3 add-in , Dec VMS, IBM PC, SCO Unix, AIX , HP-UX & Oracle for NLM. DB Admin ,some Unix Admin, tuning ORACLE/UNIX.

**Computer Sciences Corp.** - Reserve Component Automation System (RCAS). RCAS was a massively distributed system to mobilize troops & manage unit administration. I worked on the 1st phase & on the Post-Phase I. I did data modeling, application tuning, database application development (3GL & 4GL), data prep & loading.

**Key Skills:** Oracle v6 (Oracle v7 alpha, Trusted Oracle alpha), SQL\*Forms v3, Pro\*C, SQL\*Loader, SQL\*Plus, PL/SQL, DoD, Mil-Std-7935A, Modeling (ER-Diagrams, DFD's) Unix, C-shell scripts.

**Mindbank Systems** - RCAS. I started out as a consultant to CSC. My work on the Competitive Demo was so highly regarded, that they hired me even though they had not yet won the award!

**Key Skills:** Same as Computer Sciences above.

**Cimage Corp(Ann Arbor, MI)** - I developed software to manage images (CAD drawings, GIS, maps, etc.). I was the system architect for Data Master®. Data Master allowed us to create custom data elements for the image objects & manage physical files that represented the images. I designed the client/server protocol, & implemented the database server on ORACLE. Data Master was RDBMS independent (implemented using SQL standard), & was ported to Unix & Dos. Clients could be using one RDBMS on one O/S while the server could be another RDBMS on another O/S. Prior to my arrival the product was only on DOS using Informix (with non-standard SQL) & we had to custom build the db for each customer. I was promoted to Database & Applications Mgr.

**Key Skills:** Oracle v5 & v6, Pro\*C, some SQL\*Forms v2.3. Informix 4GL & ESQL/C. Systems Analysis / Integration and Client/Server. UNIX : Sun, Dec 5100 (RISC), IBM RS/6000. Dos Workstations also. RFP's, RFQ's. IMAGING. Informix.

**Merit Systems(Dearborn, MI)** - Design For Quality (DFQ) was a system to take engineering & designer templates & instantiate the templates to particular vehicle programs. These checklists were a mechanism to capture expertise of the best engineers/designers. We prototyped DFQ on DOS, finalized DFQ on DEC Vax (Ultrix) & ported the application to PRIME & Sequent computers.

**Key Skills:** Oracle v5, Pro\*C, SQL\*Forms v2.3. Dec , Prime, Sequent Dynix, & DOS.

**Software Services(Ann Arbor, MI)** -I was a consultant to Cimage Corp. I would visit customer sites performing systems analysis and preliminary design work. I developed many Image Mgt/GIS prototypes for a variety of customers: GM, US Army, US Navy, PG&E, Martin Marietta, etc

**Key Skills** - Systems Analysis and Integration, Data Modeling/ER Diagramming, and Data Flow Diagrams. Some proposal work as well. I also worked with Imaging tools. Oracle v5/v6. Client/Server. Some C programming.

**Ford Motor Company(Dearborn,MI)** - I was a Systems Analyst on the CEPR project. I did extensive Oracle applications.

Manufacturing/Bill of Materials, Project Timing(I developed a project mgr using Oracle, PL/SQL, REXX)

**Key Skills:** Oracle v2- v5, using UFI (became SQL\*Plus), IAG (became SQL\*Forms 1.0, 2.0, & 2.3), ODL (became SQL\*Loader) and PRO\*PL/1. I also did PL/1 & REXX development external to database developments. The primary platform was IBM/Amdahl VM/CMS with some Honeywell Multics & Fortune Unix .

**General Motors(Warren/Detroit, MI)** - I was a Programmer/Analyst. I was also a systems programmer & did some system admin. I worked on numerous projects employing an enormous variety of technologies. I was trained in Relational Data Modeling(1981) I was taught relational modeling which I used on small and large projects.

**Key Skills:** PL/1, MRDS RDBMS, Data Modeling, Perephonics (realtime telephony), Tellagraf & Disspla on Honeywell Multics. BASIC on Honeywell DTSS, Cobol, Fortran & DPL on DEC Tops 20. Realtime programming.