

Jon J. Fineman
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Overview

For Linux, and Microsoft platforms, designed solutions for internet, intranet, client/server, and stand-alone applications. Worked in the testing/assessment, marketing, telecommunications, publishing, and manufacturing industries. Modeled business and system processes, gathered and documented business and system requirements, prototyped proposed interfaces and systems, designed, coded, and tested programs and systems.

Professional Experience

ETS, Architect

March 2005-May 2020

CAI, Lead Java Developer (ETS right to hire)

August 2003-March 2005

- Designed and coded the Lambda and Glue Python scripts for a file validation application on AWS. Interfacing systems drop files to be validated in an S3 bucket. Lambda is triggered by the S3 Put. The Lambda script will then enqueue object attributes in a JSON structure to SQS. A scheduled Lambda job checking for messages in SQS will launch a Glue script to process the messages. After the Glue script drains the queue it will check if it has been running less than ten minutes, if so it will continue to wait for more messages for up to ten minutes to ensure the job uses the minimum ten minute billing time. After each message is processed the Glue script will publish the status to an SNS topic that users can subscribe to and filter the message types they want.
- Architect for ETS' Score Key Management system that consists of 4 Oracle databases, 2 web services, 6 front-end applications, and 3 scoring libraries (Java for Linux, C for Windows, Assembler for Mainframe). The scoring libraries computed candidate scores for external reporting and internal analysis. The system supported scoring and score management for tests such as TOEFL, TOEIC, GRE, Praxis, K-12, and SAT.
- Developed Python scripts to extract Candidate information from Oracle stored as XML blobs to produce reports. Created Python scripts to monitor the health of the JBoss instances and report statistics.
- Managed projects to upgrade the Score Key database from Oracle 9i to 11g, then 12c.
- Ported the legacy C test scoring libraries to Java.
- Designed and developed Java programs that cached the scoring information from the Oracle database via JDBC. This application scores the TOEFL and GRE computer based tests. Designed and coded C libraries that call the Java Native Interface library. This extended the life of the existing analysis systems written in FORTRAN and allowed it to call the new Java scoring system.
- Maintained and enhanced the Test Scoring applications written in Java, C, and FORTRAN. Added support for new item types (multi-dimensional, grid-in).

RCN, Senior Application Developer

March 2002-August 2003

- Created Visual Basic modules and Macros for Excel to bulk load spread sheet data into an Access database using ADO.
- Converted a Visual FoxPro application to use an Oracle database and stored procedures.

Independent Consulting, Consultant

July 2001-March 2002

- Maintained web pages including a monthly newsletter using FrontPage with IIS.
- Created SQL to extract data from an MS Access database for on-line reporting.
- Tutored individuals on Microsoft products, and on how to use the Internet. Advised on selection of PC systems.

Impower, Architect

May 2000-July 2001

- Designed and coded Java servlets, Java programs and SQL to extract the billing and customer information from an Oracle database via JDBC. Created Java Servlets, CGI scripts, and Oracle SQL to provide additional reports.
- Created Java programs and Perl scripts to assist in maintaining and monitoring production systems.
- Designed the data model for an email advertisement tracking system. Created the SQL load scripts to import the data and the SQL for reporting.

Resume of Jon J. Fineman

Emerald Solutions, Architect

April 1999-May 2000

- Designed a framework for an application for AT&T that would allow businesses to view and pay their bills online.

Electronic Data Systems Corporation, Architect

March 1988-April 1999

- Designed a client/server application for Dow Jones' front-end publishing system. Created project plans, identified risk areas and created contingency plans. Mentored the technical staff. Coded a C++ prototype to stress test the object database. Led a team that coded an object oriented server using C++ under Solaris and the client using VB and VC++ under MS Windows.
- For AT&T designed a TCP/IP PC client to connect to a MVS server which connected to a DB2 database. Analyzed a Unix, C, Oracle application and recommended the application be restructured to make better use of the multiple processors. Analyzed a Unix, C, Sybase application and recommended the application be separated from the database. Analyzed the performance of a DB2 system, ran benchmarks and gathering performance data and developed response-time graphs. Implement a system using Unix, Oracle, C, and KShell. Responsible for setting team goals, creating work plans, assigning work, ensuring milestones were met, personnel performance evaluations, salary, and promotion recommendations.

BFR Systems, Consultant

November 1986-March 1988

- Designed and led a team to develop a C based data communications system for Tandem's fault tolerant computer to connect to Bell Lab's network.
- Created a detailed functional specification for U.S. West that outlined how COMTEN should connect to Bell Lab's X.25 network.

Electronic Data Systems Corporation, Senior Systems Engineer

May 1985-November 1986

- Developed a Unix C client/server order processing system.
- Developed Unix C prototypes for AT&T.

Control Data Corporation, Senior Systems Analyst

February 1982-May 1985

- For Bell Labs maintained, enhanced, and tuned the system software of CDC's CYBER-1000 Terminal Handling Processor. This included the Executive, Interrupt Routines, Device Drivers, and X.25, Binary-Synchronous, and CDC-MTM protocols. Developed a device driver for the HDLC (X.25 level-2) protocol.

Bethlehem Steel Corporation, Programmer

July 1979-February 1982

- Modeled a 66" six-stand reduction cold rolling mill for quality control. This FORTRAN program considered the many aspects of the mill including inter-stand tension and the crown of the rollers.
- Developed assembly language firmware applications to execute real-time on 8080 and 6502 based microcomputers to gather mill data for later analysis.
- Designed and constructed interface circuits that allowed microcomputers to interface to analog and digital mill equipment sensors.

Education

- Spring Garden College, Chestnut Hill, PA
BS Electrical Engineering, 1981

Memberships

- Member IEEE ('92-'00), ACM ('98-'00), IEEE-Computer Society Technical Committee on Software Engineering Standards ('95-'99), technical referee for IEEE-Software Magazine ('94-'99).
- 1/94-6/95 Member Flemington-Raritan Regional School District Technology Committee. The goals of this committee are to educate and involve the community in the use of the technology that is being deployed in the school system.
- 9/98-8/04 Assistant Scout Master, Troop 194, Boy Scouts of America.
- 2/85-6/85, 2/86-6/86 Volunteer instructor for the Digital Circuits class offered by the Explorer Scouts Program and sponsored by the Telephone Pioneers of America, Bellcore Chapter.

Resume of Jon J. Fineman

Skills

- Programming languages: Python, Java, SQL, PL/SQL, C/C++, JSON, XML, HTML, JDBC, ODBC, JavaScript, Perl, Word/Excel/Access VBA Macros, Korn/Bash/Shell scripts, AWK, FORTRAN
- Programming design: Web server, Client/Server, network communications, real-time programming/RTOS
- Operating systems: Redhat Linux, Ubuntu Linux, FreeNAS, OpenBSD, NixOS, MS Windows, MS DOS, MVS
- Databases: Oracle, Access, DB2
- Tools: AWS (Lambda, Glue, SQS, S3, SNS, CloudWatch), Eclipse, MS Visual Studio, SQL Developer, Toad, XMLSPY, MS Project, MS Office, Git
- Modeling: Object Oriented Analysis Design and Programming, Structured System Analysis, Scrum

Home Projects

- Custom build desktop – ASRock Mini ITX AB350, AMD Ryzen 5 1600, AwesomeWM/OpenBSD
- Backup/media player – ASRock Z77 Extreme4 Intel I5-2500, Raid Z2/6, NixOS, Plex Media Server
- Internet radio/MP3 player – Raspberry Pi Zero W, Python
- Caller ID blocker – USRobotics modem, Python, Ubuntu
- Security camera – Raspberry Pi Zero W, Python