

## EXPERIENCE

### **National Product Sales**

2003 – 2004

#### Database Expert/Consultant

- Reverse-engineered in-house (NPS Bookie) and Amazon storefronts for improved support.
- Architected fully expandable database schema for job application and recruits system.
- Designed and implemented wireless PDA interface to inventory database using bar codes.
- Created data interface between MySQL and Microsoft SQL Server.

#### Principal Programmer

- Supported and updated online storefronts.
- Designed and implemented web-enabled end-to-end job application and recruits system.
- Managed server certificates and secure HTTP.

### **American Electric Power (AEP)**

2000 – 2003

#### Database Architect & Principal Java Developer

- Interfaced with DB2 to translate legacy systems.
- Designed and maintained DB2 schema.
- Created schema map between legacy and new system.
- Gathered “mind-share” of J2EE system for company.
- Prototyped a real-time tool for special commodities exchange data feed for a wireless PDA.
- Consulted PDA synchronization solution with back-end Lotus Notes and database systems.
- Wrote tools for Palm/PocketPC to interface with PeopleSoft database back-end.

#### Project Manager/Infrastructure Architect

- Defined, designed and led virtual teaming project permitting distributed team to interact.
- Headed team of experts to create near- and far-term wireless infrastructure.
- Researched Microsoft’s support for the next generation of the Internet (IPv6).
- Guided/oversaw effort for front-to-back network solutions for in-field projects.

#### Technology Expert

- Advised development, deployment, and population of knowledge management system.
- Assessed and proposed additional internal projects using product prototyping.
- Monitored technological field for tools, techniques, products to help corporation.
- Analyzed viability of wireless technologies in AEP Information Technologies.
- Moderated corporate Java Community of Practice.

#### Industry Partner Liaison

- Found best technology contenders using both internal and external product providers.
- Ran pilots to compare products & analyze adaptability to AEP infrastructure.
- Negotiated and coordinated product samples/evaluations units for internal review.
- Collected internal needs and aligned them with product offerings for “best fit” solutions.
- Saved company over millions of dollars in the selection and negotiation of products.
- Created cost and charge-back figures for internal product offerings.

### **Nationwide Enterprise (NF, NI)**

1999 – 2000

#### Project Leader/Manager

- Led six-programmer team to implement client's self-management system.
- Led four-programmer team to implement credit card B2B solution.
- Programmed special COM for generating and testing Authorization Activation Keys.
- Facilitated over 15 different business areas, standards groups, and projects.
- Finished ahead of schedule each time.
- Y2K compliance leader.

#### Database and System Architect

- Designed SQL Server schemas and Site Server web-fronts.
- Defined flexible database schema for SSO and product interfacing.
- Invented “smart” Authorization Activation Keys to authorize clients' web access.
- Created complete authentication & authorization products.
- Integrated Internet and Intranet authentication for Single Sign-On (SSO).
- Defined simplified interface for Internet applications & personalization.

- Designed special measures for cracking detection and account lockout.
- Oversaw configuration management for several groups.

Senior Process Scientist

- Adapted UML to current processes.
- Took the current processes to the next steps of analysis and design.
- Defined easy to use process for working with databases and object modeling.
- Integrated legacy work into development process.

**Carolla Development, Inc.**

**1997 – 1998**

Lead Technical Scientist

- Experienced trainer in process improvement and object technologies.
- Created advanced C++ and Java courses from object view.
- Revised, updated, and improved object-oriented analysis and object-oriented design (OOA/D) courses.
- Revised, updated, and improved customer requirements and processing courses.
- Updated courses to incorporate UML (in-process).
- Taught Customer Requirements, OOA/D, C++ and Java courses.
- Highly praised as an exceptional and knowledgeable instructor.
- Consulted several companies for technical issues.
- Provided company's intranet and Internet solution (at minimal-recurring cost).
- Presented topic on "Heuristic Algorithms" at local ACM chapter.
- Adjunct faculty at OSU Computer Information Sciences Department.

**Advanced Programming Resources**

**1995 – 1999**

Senior Consultant

- Wrote Omnimark programs to convert journal bibliographies (SGML) to Oracle-ready data.
- Wrote public-domain tool that creates DTDs from markup file.
- Prototyped stock & bank transaction application for BlackBerry email pager.
- Worked with high-level C++ framework and low level messaging protocols.
- Integrated with back end support and servers.
- Analyzed and designed bibliographic record converter.
- Used fail-safe techniques to write code that proved nearly 100% bug-free.
- Built and maintained a library of tools to facilitate conversion process.
- Cut development time from 18 months to 9 months.

**Metatec Corp.**

**1994 – 1995**

Data Management Expert & Senior Programmer

- Invented a custom, 100x quick response CDROM database.
- Wrote easy to use query languages for various CDROM databases.
- Wrote an interface which simulated user input for user tutorial and product testing.

Lead Process/Mentor

- Mentored several engineer developers with program theory, design and implementation.
- Oversaw programming and QA groups through decision, request, and defect processing.
- Lined up customers, developers, and testers to target high-quality product delivery.
- Balanced resource, timeline, and deliverables toward a very successful product offering.
- Improved data preparation using network multiprocessing (7-10 days down to 2).

**Novell, Inc.**

**1993**

Test Development Engineer

- Learned advanced C++ development and beginning Windows programming.
- Automated tests while using established test cases and automation.
- Designed code volatility metrics to track code evolution and potential "hot spots."

**Hewlett Packard Co.**

**1989 – 1993**

Development Testing

- Created automated tests to validate Adobe PostScript®.
- Adapted the LaserJet 4Si to comply with power conservation Energy Star.
- Headed control panel testing for functionality & display messages.

Development Tools/Inventions

- Created printer engine emulator which generated engine signals to the formatter board. Saved company approximately \$300,000 per evaluation engine.

- Built demonstration ROM SIMM for superstore marketing. Completed development and testing in one-third projected time.
- Patented “automatic printer formatting language detector” with a pick reliability of 99.99%.

### **Independent Consulting**

**1984 – present**

- Built multi-node Linux boot simulator to isolate cause of boot failure for U of U CS Dept.
- Designed/prototyped decision-maker tool for the PalmOS in Java.
- Designed & wrote Java utility budget/money manager for PalmOS using Java.
- Wrote *IPv6 Programming* book for C/C++/Java programmers under Windows and UNIX/Linux (2002).
- Published several articles on using C/C++/Java socket programming (InformIT, 2001).
- Published *Linux Socket Programming* book for C/C++/Java programmers under Linux (SAMS 2001).
- Wrote *Computer Fundamentals* book for the common user (1998).
- Taught course on intermediate and advanced UNIX V to Unisys employees.
- Analyzed Transputer multiprocessor and recommended techniques to migrate processes to increase process throughput.
- Wrote DOS device driver for tape device.

### **SKILLS**

**Management:** Team leadership, mentoring, facilitation/presentation, software life cycle.

**Architecture:** Database architecture, design and conversion; system analysis, design, and testing.

**Development:** Web front-/back-end programming, PDA programming and back-end integration, systems programming.

### **CAREER SUMMARY**

Team leadership – oversaw projects through different environments and platforms. Twenty years of database architecture, system design, and programming background – facilitated and mentored technical teams. Group facilitation/presentation skills – helped senior management, customers, and programmers to communicate effectively.

### **EDUCATION**

Computer Science Masters of Science (1990), Brigham Young University.

Computer Science Bachelors of Science (1988), Brigham Young University.