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AREA OF INTERESTS

- Distributed data systems
- Software architecture/system design, application programming, web programming, GUI programming,
- Earth Science: solid earth history, plate tectonics, geochemistry, thermal chronology
- Earth Science data sharing, archive, distribution,
- Web programming with server-side Web technologies,
- Web programming with HTML / XML / CSS /Java Script /Java Applets.

EDUCATION & CERTIFICATE

- SUN-Certified Java Programmer, January 2001
- M.S. Computer Science, May 2000, Southern Polytechnic State University, GA
- Ph.D. Earth Science, State University at Albany, NY, 1993
- B.S. Geochemistry and Mineralogy, Peking University, PRC, 1983
- Regional High School Math & Physics Contest Winner, Guiyang PRC, 1978

PUBLICATIONS

- (1) Pan, Y., etc, 1993, Thermal and unroofing history of the Lhasa area, southern Tibet - Evidence from apatite fission-track thermochronology: *Nuclear Tracks and Radiation Measurements*, v. 21, p. 543-554.
- (2) Pan, Y. and Kidd, W.S.F., 1992, Nyainquentanglha shear zone: A Late Miocene extensional detachment in the southern Tibetan Plateau: *GEOLOGY*, v. 20, p. 775-778
- (3) Pan, Y., etc., 1991, Structural and thermal chronological analysis of a major low-angle extensional shear zone in the Nyainquentanglha Range, southern Tibet, *Geological Society of America Abstracts with Programs*, v. 23, no. 5, p.147.
- (4) With Copeland, etc., 1995, Thermal evolution of the Gangdese batholith, southern Tibet: A history of episodic unroofing, *TECTONICS*, VOL. 14, NO. 2, PAGES 223-236, 1995
- (5) With Copeland, etc., 1989, Uplift of the Nyainquentanglha and the crustal thickening history of southern Tibet, *EOS*, 70:1372.
- (6) With Coward, M., etc., 1988, The structure of the 1985 Tibet Geotraverse, Lhasa to Golmud. *Philosophical Transactions of the Royal Society of London, Series A*, 327, 307-336.
- (7) With Chang, C.F., etc., 1986, Preliminary conclusions of the Royal Society and Academia Sinica 1985 geotraverse of Tibet, *Nature* 323, 501 - 507 (1986).

TECHNICAL EXPERIENCE

- January 2007 – Present, Computer Scientist / System Engineer, ORNL, TN

Working on data server related technologies, server side analysis tools, OPeNDAP and Related technology evaluations.

- August 2006 – December 2006, Senior Software Engineer, Tivoli Group, IBM, Atlanta, GA

SOMA Project:

Worked on IT security tool development (Security Operations Manager Application), with a distributed, multiple data source system, with Java, Database, Swing GUI technologies.

- May 2000 – July 2006, Senior Software Engineer, Internet Security System, Inc., Atlanta, GA

Committee member, Encryption Product Export Control Committee, ISS

Remote Scan Commander Project:

Design and implemented a Web-based remote scanning service software, in which secure communication from the web server to an Internet security assessment software (Internet Scanner) was used. After careful considerations, a Java-enabled web-server was chosen, with JSP/Serverlets as client accessing the backend database (ORACLE) through JDBC connections. HTTPS/SSL was used to ensure secure communication between the browser clients and the server. On the backend an independent process was designed to schedule security assessment through Internet Scanner. As the secure communication to the Internet Scanner software was written in a C++ library, Java JNI technology was used to bridge the Java application and the existing native library.

Enterprise Dashboard Project:

Design and implemented a distributed, enterprise-level, security protection/detection software, using Java RMI and JNI interface to C++ based security products. I have actively participated in the initial technology research and architectural design of this project. After careful consideration of the current cutting-edge technologies, we have chosen to use the Java RMI to design and implement this application, although other choices, such as JVM, CORBA, full fledged EJB, SOAP were all compared for their pros and cons. We have practiced extreme programming in this project hence many mini-design of various sub-systems were used. I have made major contribution in the scheduler sub-system design and implementation, in which I have utilized UML and other case tools for class design and schema design. I have also contributed to the research / design of the mapping between objects and relational database. Secure RMI (SSL) and secure JDBC connection to SQL SERVER (SSL) database were realized via SSL in this project. Client UI was written in Java SWING technology.

- January 1999 – May 2000, Software Engineer, IQXpert, IHS Group / PartMiner Inc., Atlanta, GA

IQWeb Client Project:

Using Java technologies to transfer a legacy C++ client-server software to a Web-based system. Designed and coded Java classes to cache remotely obtained XML data objects. Contributed to the design of XML DTD and XML server APIs. Used XML parser to process input XML streams upon requests from the browsers. The processing was based on JSP/Java Servlet technologies for dynamic HTML generation. A Java-enabled web server was used, as well as CORBA-based middle ware (Orbix broker). Part of the project also requires the use CGI programming with C, and ISAPI programming with VC++/MFC in order to get information from local databases.

- 1997 – 1999, Software Engineer, International Computex , Inc., Atlanta GA

Product Manager (PM) Project:

Performed customization programming, maintenance, and unit testing of object-oriented, three-tier client/server C++ applications. Tasks included addition and modification of client-side GUI functionality using Neuron Data Script (Motif), addition/modification of server-side processing logic using UNIX/C++, database connection, SQL programming using Oracle.

- 1993 – 997, Consultant, Boogay Consulting, San Diego, CA

Main responsibility was to provide environmental consulting services to clients in varies industrial sectors. Heavily involved in IT support of company consulting service. Designed and maintained databases, software selection and purchasing, and generated numerous reports using SQL. Designed and maintained a company Web page. I have written numerous technical reports based computerized research effort for customers.

- 1989 – 1993, Research Assistant & Ph.D. Graduate Student, State University of New York at Albany, NY
Thermochronology study of the Tibet Plateau. Using Ar40/39 dating, Fission Track analysis, to study the unroofing, uplifting, and general tectonic history of the plateau since Euro-Asia plate collision.

Structural Geological mapping and analysis of Southern Tibet region.

Performed computer modeling of geological problems using the C programming language, including designing, implementation, application, and maintenance of modeling programs. Conducted scientific calculation and modeling of diffusion processes as a function of geological cooling of crystals. Results published/presented in prestigious technical journals/international conferences.

- 1985 – 1986, Visiting Researcher, Geochemistry and Geology, Imperial College, Loudon University, UK., founded by the Royal Society of U.K.
- 1983 – 1985, Research Geochemist, Institute of Geochemistry, Guiyang, Chinese Science Academy
Geochemistry and Geology