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Curriculum Vitae



Personal Data

Born on 11.07.1958 in Sonthofen, Allgäu. Married, two children. Hobbies are Reading, Jogging, Snowboarding and last but not least motor cycles. Foreign Languages: English (several years in USA), some French.

Professional career

Note

Information on current and past projects, university lectures and discussions of computer science topics, security and society can be found at my publishing platform [<http://www.kriha.org>]

Current activities	Doing a doctoral thesis at University of Freiburg in the area of security and society. Research on security for nanotechnology-labs and virtual worlds, damage-reducing systems and "Ultra large scale systems - scalability and availability".
3/2003 - Founder and Vice President of Steinbeis Transfer Center	The Steinbeis Transfer Center "Mobile Communication and Embedded Systems". does security analysis, workshops, certifications and software development.
11/2001 - Professor at Hochschule der Medien Stuttgart	Distributed systems and internet technologies, software technology and security. Extensive teaching activities in operating systems, design patterns, generative computing etc. Organization of special events and workshop on current topics in computer science and society (digital rights days, security days, linux days, games days). Consultant for content management, publishing, software devel-

<p>2/1999 -12/2009 System Architect and Consultant for UBS Private Banking, later UBS AG Zürich.</p>	<p>opment and architecture at Pythonfactory, Basel. Building system architectures for a large financial corporation including security zones, application integration.</p>
<p>1996 - 1/1999 Solution-Architect with Systor AG in Basel</p>	<p>Implementation of a Private-Banking Enterprise Portal, based on a core publishing system with XML service aggregation architecture (XML-infobus concept). Design of security concepts for portals and publishing systems in intranet and internet environments. Design and implementation of a portal framework based on J2EE and model 2 architecture. Design of security components, implementation of authorization. Participation in the design of a new demilitarized zone Work on distributed services for profiling, logging and search as part of a new strategic architecture for e-business applications. Study on non-functional requirements (performance, security, availability) of distributed services. Implementation of a distributed, concurrent request-handling. Design of new technology for performance improvements (distributed caching, fragment based architecture). Integration of document management and application server. Responsible for tooling and development standards. Mentoring of different development teams in Basel und Zürich during portal development. Concepts for international and distributed software development. Workshops and talks about internet and portal technologies.</p> <p>Work in the system development group of the millenium banking project - a strategic project for a new backbone system. Spezifikation of a distributed system management based on IBM Enterprise Solution Component Broker und Tivoli. Cooperation with IBM System Management specialists in Austin, Texas. Responsible for repository, system-management and tooling of the development environment. Owner of the vendor relation in these areas (IBM Component Broker). Introduced XML technologies for system management and development. Technical Lead of the framework group. Planning of the cell-design for Distributed Computing Environment (DCE). Integration of IT-security aspects and software architecture (firewalls, secure delegation, CORBASEC) Member of Systor research. Work and mentoring on SGML/XML, VRML, and Java. Architecture reviews and refactoring of external projects. Study on current problems and solutions for OO-framework projects in the area of document processing. Mentor for a project in financial instruments. Workshops on transaction processing, workflow management and XML.</p>
<p>6/1994 - 11/1996 Head of framework development at IPInfo Process</p>	<p>Responsible for architecture and implementation of a platform independent framwork for document management, image processing, workflow and archiving and of applications based on the framework. The architecture was based on production line software concepts using domain analysis. Introduction of object-oriented technologies (C++, CORBA) in conjunction with SGML-based document technologies. Image Processing via RPC. Introduction of source code control systems and automatic builds using imake. Implementation of a meta-data driven component architecture with the goal of reducing service overhead at the customer site as well as application development effort. Introduction of a design pattern</p>

based development process to improve group communication and product quality. A permanent quality improvement process was established (workshops etc.) Product presentations at Object World in Frankfurt and OOP in Munich. Concepts for database publishing and SGML-based production processes.

1/1992 - 5/1994 Designer for system software at Litef in Freiburg.

Responsible for Design and Implementation of the system software for a fault-tolerant multiprocessor system. Implementation of a network based graphic subsystem for embedded-control applications. Design and Implementation of fault-tolerant I/O subsystems (multi-I/O, flash-file system). Implementation of several bus systems (SCSI, VME, TCP/IP via shared memory) Implementation of various device drivers

7/1986 - 12/1991 Unix-Kernel Engineer at Siemens/Munich and Santa Clara/CA.

Development of system software for Unix and realtime systems (communication software, X-Window server, PC-simulator, device driver for Sinix multiprocessor systems and workstations). 1989 to 1991 on assignment for Siemens/SNI in Santa Clara, California. Architectures for large scale projects (z.B. Backoffice and POS for a large hardware chain (8000 shops) in the US, based on SCO Unix) in den USA. Cooperations with Xerox and SCO. Market watch and trend analysis.

Education

1964 – 1968 Elementary School Sonthofen

1968 – 1977 Gymnasium Oberstdorf, Matura

1977 – 1978 Military Service

1979 – 1986 Studies in social sciences (Diplom), literature and history at Ludwig-Maximilian-University Munich

Main focus on empirical methods, statistics (SPSS) and structural analysis of text. Work on automatic language translation with Siemens AG. Programming on CDC Mainframes. System programming of PC's.

Management and Communication

Head of development groups, full budget responsibility. Project and technical lead, chief architect. Experience in international software projects. Practical know-how in transition and re-engineering projects.

Good social competences. Able to teach and introduce new technologies. Mentoring and workshops on various topics.

Technologies

Programming Languages

Java, C++/C, Javascript, SGML/XML, various assemblers, some "E" and other functional languages like Oz/Mozart and lisp

Operating Systems

Windows, Unix, OS/2, Realtime-Systems. System-programming of mono- and multi-processor systems.

Distributed Computing

TCP/IP, Internet protocols, CORBA, Distributed Computing Environment (DCE), HDLC, JMS, Tivoli, Enterprise Java Beans und J2EE, Peer-to-Peer architectures, event-driven architectures. Scalability, availability and performance in dist. systems..

Security	Security frameworks and architectures, protocols and concepts, Damage reduction architectures based on object capabilities and POLA. Risk assessment techniques and security analysis. Wide range to threat models. Usability and Security concepts, browser security, language based security.
Architecture	Design and implementation of large scale projects in distributed environments. Reliability, performance and lifecycle-aspects. Security and System Management. Flexible (framework) designs, production line software with domain analysis. Transaction and real-time processing. Component architectures.
Application Server	IBM Websphere Advanced and Enterprise, J2EE, Performance and Monitoring
Databases	DB2, Oracle
Document Technology	OCR, image processing, dokumenten-centric workflow, modelling (creation of Document Type Definitions, representation via composite objects), SGML/XML tools, Multimedia Technologies for Corporate TV, Streaming
Publishing Systems	Mediasurface, Point-of-contact, Vignette, Docbook XSL, custom CMS
Project Management	Eclipse, RCS, CVS, Imake, VA Java Enterprise, SNIFF++, Purify, IBM Global Services Method
Software Technology	Objekt-oriented, extreme Programming and SCRUM approach , design patterns, framework technology, CRC, UML, Model-driven-development, Concept based approach

Publications and talks

A list of my writings is here [<http://www.kriha.de/krihaorg/personal/writings.html>].

All my lectures, talks and university materials can be found at www.kriha.org [<http://www.kriha.org>].

References

Please let me know in case you need references on past jobs or contracts.

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