# CURRICULUM VITAE

## PERSONAL DETAILS

Thomas Studer
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## EDUCATION

Syracuse University, Syracuse, New York
Master of Science in Computer Science (Hons)

HTL Brugg-Windisch, Windisch, Switzerland
Informatik Ingenieur HTL

Sun Certified Java Programmer. Training in IT security.

## EXPERIENCE

2002 - Independent Consultant / Software Engineer (http://www.conjective.ch)

Responsible for the overall system architecture and design of a Web application development framework ("J4e", http://www.j4e.ch). The framework provides a high-level architecture and a set of design principles for the development of Java Web applications using Open Source tools and technologies. J4e was designed from scratch for maximum flexibility, scalability, performance and reusability. It is based on J2EE and employs state-of-the art tools and technologies including **Jakarta Ant, CVS, CruiseControl, JBoss application server, Apache Web server, Apache Tomcat, JSPs, Servlets, ULC thin client API, XML** etc. It supports a large number of relational database systems including **Oracle, DB2, Sybase, MS SQL Server, MySQL, PostgreSQL** and others. (Platform and DB independence was one of J4e's main design goals.) J4e runs on various operating systems including Linux and Windows. It also supports the integration of most commercial (or Open Source) **Content Management Systems**.

Technical specification and design of a number of business components for portfolio risk management. The components implement the business logic to perform functions like **trade simulation, portfolio position correlation calculation, automated hedge proposition calculation and scenario impact estimation**. Implementation, test and deployment of these components in a Java application server environment.

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1998 - 2001 Senior Consultant, Logica Consulting AG (http://www.logica.com)

**Technical architect of a B2B banking portal for Credit Suisse First Boston**. Responsible for the system's overall architecture and the implementation of the user authorization, personalization and content management facilities. The portal provides access to vital business data (documents and host transactions) to registered client organizations and is based on a highly secure, five tier architecture employing technologies and platforms like **XML, JSP, Servlets, BEA WebLogic, EJBs, CORBA, Sun Solaris and Oracle**. Strong security and authentication is achieved through the use of **RSA SecurID** cards and **SSL** connections. The **Vignette** content management system is used for the presentation and document management aspects of the project.

**For Credit Suisse Private Banking: Technical lead analyst** for the implementation of an **e-banking system**. Security requirements analysis for the implementation of the same e-banking solution. **Content Management System** package selection and installation. CMS template development for the bank's Intra- and Internet sites. System architecture for the integration of the e-banking package with the Content Management System, including personalization.

**IT architecture security review** of a web application for a major Swiss telecom firm. The Internet portal serves about 400'000 customers.

Development of a **financial research tool in Java** for a leading asset management firm. The visualization part of the program allows the user to render selected company relationships for a given point in time or to animate the development of the relationships between a set of companies over time. Technologies applied: **Swing GUI, JDBC**, dynamic expression parsing / **SQL** query generation for data selections expressed in business terms, **MacroMedia Flash4** export, **EPS** export.

Implementation of a **secure, web based application for a group of Swiss Telecom Service Providers. Chief architect of the system** and later lead developer for the Web front-end and application server components. The system was developed on Linux and Digital Unix using the **Apache web server and Perl**. The database used was **Oracle 8**.

For **Deutsche Börse Systems**, designed and developed the reporting facilities of a software system to manage collaterals. The system was developed in Java 1.1 (IBM VisualAge for Java under Windows NT).

Development of Logica Consulting AG's Web-site (http://www.logica.ch)

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1996 Messe Basel, Basel

Design and implementation of an **OLE Automation** enabled client/server application under **Windows NT, Microsoft SQL-Server** and **Visual C++.** The application is used to manage code tables for an integrated business application. Developed a number of reusable software components in C++.

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1995 Self-employed

**Developed "Tweener"**, a Macintosh shareware program (written in **C++**), which was selected and promoted by several computer magazines.

Contract development of a **tool in C to automate the translation of Macintosh software.**

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1993 - 1995 Sandoz Pharma SA, Basel

**Managed a team of four application developers.** Worked on several projects in the area of SAS, C, user requirements analysis and package selection.

## EXPERIENCE DURING EDUCATION

**One of three technical architects in a 70 students C++ software project developing a CASE tool.** The developed program supports "round-trip" engineering of C++ code, allowing updates to classes via the graphical model or the source code.

**Developed a fully functional Web server in Java** using Sun's JDK 1.1 and Servlet Development Kit. The server implements HTTP 1.0 and supports Web-based remote administration, CGI scripts and Java servlets.

**Developed a 3-tier parallel computing environment** consisting of a Java applet as front-end, Java servlets in the middle tier and C programs in the back-end. The purpose of the system is to demonstrate the suitability of the Java "listener-call-back" event model as introduced in JDK 1.1 to synchronize high-performance parallel computations in an event driven manner with little communication overhead. The Java front-end allows the user to configure and graphically connect individual computation nodes and to submit the resulting model to the underlying tiers for processing.

**Developed a tool in C++ to analyze the structure of C++ source code.** The program is able to parse and analzse C++ files and output the collected file, inheritance and aggregation relationships.

## LANGUAGES

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|---|---|
| German | mother tongue |
| English | excellent, close to mother tongue skills (written and spoken) |
| French | basic knowledge |

## LECTURES / SEMINARS GIVEN

Hosted a 2 days **seminar on Web Technology** with an emphasis on Java and Open Source tools and environments.

**Taught the fall semester 1997 course "Introduction to Computing"** to a class of 20 students at Syracuse University, Syracuse, New York.

## AWARDS

**Winner of 1st prize in a C++ programming competition** in a US computer magazine for a routine to filter IP-addresses. The primary criteria were execution speed and code size.

Development of a **Jars top 25% rated** (http://www.jars.com) **Java open source data grid component** (“Table Bean”). The bean has been used in projects at **British Airways, Sun Microsystems, Deutsche Börse** and others. http://www.conjective.ch/tablebean/e/index.html

## SKILLS SUMMARY

***Java – Since 1996:*** Developed applications, applets, servlets and EJBs in the areas of TCP/IP communications, GUI, JDBC, host connectivity, printing, animation, graphics, discrete event simulation, parsing and code generation. Java 1.0, 1.1 and 1.2, including Swing.

***C++ – Since 1992:*** Development of tools and applications under Windows, Macintosh OS and Unix. Application of object-oriented patterns and designs. Software architecture and development team leading.

***C – Since 1988:*** Development of tools and applications for numerous professional and educational projects.

***SQL – Since 1994:*** On MS SQL Server, DB2, MySQL and Oracle. Work included general DB access, JDBC, performance optimization, parsing, SQL code generation and development of interactive query generators.

***Perl – Since 1997:*** Designed and implemented a commercial Web project in Perl. In 2002, developed reporting and financial data processing software.

***Web Technologies – Since 1996:*** Developed a Java HTTP server. Knowledge of IIS, Apache, SSL, client- and server-side Java (ECMA) scripting, HTML, CSS, Applet issues, browser compatibility issues, CGI, socket programming, Web-site optimization, browser session management and security.

***Content Management – Since 2000:*** Did two projects: one with Vignette, one with RedDot.

***XML – Since 2000:*** Implemented several XML generators and parsers for configuration, data transmission, report generation and data loading purposes.

***Visual Basic – Since 1999:*** Implemented a graphical data visualization tool in Excel VBA.

***Unix – Since 1992:*** On SunOS, Solaris and Linux: GNU tools, Perl, C, basic Shell scripting.

***Tools:*** IntelliJ Idea, CVS, Jakarta Ant, IBM VisualAge for Java, Rational ClearCase and ClearQuest, MS VisualStudio (C++), MS SourceSafe.

Practical experience also in PostScript, TCL, Ada, Scheme, Pascal, VAX DCL and Assembly language.

## REFERENCES

**Please do not contact any references without first checking with me.**

Dr. Ernst Nusterer, CTO, Swissrisk AG – current client.

Dr. André Palitzsch, Vice President, Credit Suisse First Boston – former client.

Dr. Bernhard Wandernoth, Head of Research, BT&T Asset Management – former client.

Dr. Stuart Grayson, Principal Consultant – former colleague and project manager.

Walter Lohrer, Operations Manager, Logica Consulting AG – former manager.