

# Senior software developer user interfaces, databases, web interfaces, data storage

Stuart Pook (48 years old)

<http://www.sysra.com>

## Professional Experience

2012 – 2013, **storage system for Institut Curie's data**, Sysra, France

- create a tightly controlled environment for the institute's data on Solaris/NFS
- control the access rights for users and data processing pipelines
- transfer the environment to the new Isilon clustered storage system
- C++ & python; NFS4; Solaris; Linux; FreeBSD (Isilon/OneFS)

2012, **navigator for maps of molecular interactions**, Sysra, France

- choose and integrate Google Maps for navigation
- choose and integrate the WordPress blog system for collecting community feedback
- write the JavaScript code to connect Google Maps, WordPress and our maps
- write the Java program to read the CellDesigner files and create the maps and blog
- Java; JavaScript

2009 – 2011, **visualisation and analysis of genome profiles**, Sysra, France

- devise a more compact storage and transmission format for the profiles
- invent a client Java and server C++ model to transmit the profiles only when required
- rewrite the client display code to multiply by 100 the number of profiles displayable
- implement new server based calculation modules in C++
- Java; C++; Linux & Solaris; Subversion

2007 – 2009, **Linux Voice over Internet Protocol terminal**, Sysra, France

- choose a technology for rapid prototyping of the terminal's user interface
- integrate Batik, a Scalable Vector Graphics (SVG) toolkit, into the Java user interface
- test the use of VoIP over multicast UDP
- deliver the software component for testing on the terminal hardware running Linux
- Java; Batik; Linux; Subversion

2005 – 2007, **Human Genome Project**, Génoscope, France

- specify the schema of an object oriented database of genetic assemblages using EyeDB
- write the C++ programs on Linux to insert the genome assemblages into the database
- create a C++ OpenGL based program to navigate in this database
- C++; Linux; open source object oriented database (EyeDB); OpenGL; Subversion

2002 – 2004, **mobile devices to assist in campus education**, ENST (Télécom ParisTech), France

- install and configure the project's WiFi network
- specify a protocol for the reliable transmission of files by multicast UDP over WiFi
- supervise the implementation by students in C and C++ for Linux
- investigate the use of Bluetooth for localisation
- install Linux on Hewlett Packard iPAQ personal digital assistants (PDA)
- create a native development environment for HP iPAQ PDA
- adapt C++ and Java code to work on Solaris, tablet PC, PDA and Mac
- C++ & C; Linux, MacOS X & Solaris; PDA HP iPAQ, tablet PC, Apple Mac, PC & stations Sun; WiFi (802.11b) & Bluetooth; CVS

1999 – 2001, **PhD thesis on zoomable user interfaces**, ENST (Télécom ParisTech), France

- design a zoomable user interface for a large biogenetic database in EyeDB
- implement this interface using a Java client and a C++ server for Internet use
- analyse the problems of disorientation in interfaces with semantic zooming
- invent contextual aids for zoomable interfaces
- invent a new type of contextual menu, the control menu
- conduct user evaluations
- C++ & Java; object oriented DB (EyeDB); Solaris & Linux; stations Sun & PC

1997 – 1999, **interface Internet**, Infobiogen/CNRS, France

- design and implemented a Java client and C++ server architecture
- invent an asynchronous protocol for communication between the client and server
- program the lightweight client in Java
- store the data in an object oriented database on Sun Solaris servers
- C++ & Java; CORBA; object oriented DB; Solaris & Linux; Sun servers & PC

1994 – 1996, **front and back office trading system**, Datavance, France

- write modules for traders and reports for the back office
- optimise Sybase SQL queries and the server configuration under HP-UX
- manage the project's development environment on HP-UX and Ultrix
- port the project's user interface from Clearcase to ILOG Views
- rewrite the project's report generating module to use LaTeX
- Sybase; Clearcase; Contessa & ILOG Views; C & C++; HP-UX; HP servers

1991 – 1994, **database and user interface for biological experiments**, Généthon, France

- specify and managed a relational database using Sybase for biological experiments
- write a generic interface for relational databases using C++
- create a database of the human genome using an object oriented database manager
- design and implemented a graphical workbench in C++ for the above database
- Sybase; object oriented database (EyeDB); C & C++; Solaris; Sun servers

1990, **specification of a sales database**, Turn-Key Solutions, United Kingdom

- analyse the requirements for the computerisation of the subscription department
- specify the new database structure using INFORMIX

1988 – 1989, **financial databases**, Software Associates, Australia

- maintain the user interfaces and the relational databases using UNIFY on Pyramid OS/x
- determine client needs, prepare specifications and quotes, and write new functions
- UNIFY; C; Pyramid OS/x (UNIX); Pyramid 9810 server

## Education

Doctor of the École Nationale Supérieure des Télécommunications, France

thesis titled "Interaction and Context in Zoomable User Interfaces" 1999 – 2001

Bachelor of Economics with First Class Honours from The University of Sydney

theses on (1) the use of the Black-Scholes model for pricing synthetic options and on (2) the use of dictionaries and thesauri for searching for keywords in text, 1983 – 1987