

## **CURRICULUM VITAE**

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### **EDUCATION:**

M.Sc. Physics, Simon Fraser University, 1987

Thesis: Analysis of the Korteweg de Vries equation using the inverse scattering method.

B.Sc. (Honours) - Mathematics/Physics, Simon Fraser University, 1981

### **EMPLOYMENT HISTORY:**

VELOCITY SOFTWARE SYSTEMS LTD., Vancouver, April 97-Present

President: Responsible for the development of the company. Velocity Software Systems Ltd. is an engineering design firm specializing in the development of both embedded systems in the 80X86 environment at both hardware and software levels and high level software management suites for the PC type of environment.

CARDTEK CONCEPTS CORP., Vancouver, April/96-April 97

Vice President of Engineering: Responsible for overseeing the engineering effort of CardTek., a designer/manufacturer of specialized card reader interface technology. The position entailed all aspects of human and physical resource allocation, project specification, hardware and software design specification and review, contract and schedule adherence. The software components encompassed embedded software system design, low level device drivers for the PC based systems, through C and C++ ( Borland, Microsoft, Cset++ etc.) along with Visual C++ for application and GUI design and coding. The electronic hardware components were developed using PADS and involved highly proprietary embedded systems based on 78C10 technology.

TRIONICS INDUSTRIES LTD., Vancouver, June/93-April/96

Engineering Manager: Responsible for overseeing the engineering department of Trionics Industries Ltd., a designer/manufacturer of computerized ticket vending equipment for the parking and transit industries. The department consisted of seven engineers and six technologists. Reporting to the President, the position entailed all aspects of human and physical resource allocation, project specification, hardware and software design specification and review, contract and schedule adherence. The software components encompassed a broad range of languages from 80x86 Assembler for both the embedded systems and the low level device drivers for the PC based systems, through C and C++ ( Borland, Microsoft, Cset++ etc.) along with Clipper/Xbase and Visual Basic and Visual C++ for application and GUI design and coding. The department strongly stressed object oriented design methodology and coding. The electronic hardware components were developed using PADS and ranged from simple passive interface boards through intelligent DLCC's and multiported proprietary interface modules (ISA). The mechanical components of the work were executed under AutoCad.

NATIONAL RESEARCH COUNCIL of CANADA, Vancouver, May/92-June/93

Systems Manager/Project Leader: Responsible for overseeing a VAX cluster, Novell network and networked IBM RS6000 workstations. Maintaining and implementing TCP/IP, IPX/SPX and DECNET wide area networks. Lead a team of software designers tasked with porting and expanding a graphical object oriented programming language from DOS extended 80386 assembler to ANSI standard C and from two dimensional to three dimensional representation. Developed prototype database applications and interfaces for both ORACLE and Ingress based database applications.

SHIP & SAVE (M) SDN. BHD., Malaysia, Sept/91-March/92

Technical Director: Responsible for the building of a manufacturing facility to produce packing material for perishable goods. The position reported directly to the President. The duties covered all aspects of facility planning and implementation, including plant layout, equipment design and specification, contract negotiation, contractor selection and supervision, scheduling and contract adherence. The operation was brought on stream ahead of schedule and under budget (\$1M).

## **EMPLOYMENT HISTORY (cont.)**

NATIONAL RESEARCH COUNCIL of CANADA, Ottawa/Vancouver, July/89-Sept/91

Institute for Aeronautical Research

Systems Manager/Systems Analyst/Programmer Analyst: Responsible for overseeing a VAX cluster and maintaining the wide area network. Redesigned, wrote and applied a fatigue-life analysis system for CF-18 aircraft, on an IBM 3090 under VM using REXX, FORTRAN77 and ORACLE. Implemented, maintained and modified a graphical flight simulation/playback system, on a VAX 3100 workstation under VMS using DCL, FORTRAN and VWS. The fatigue life analysis and the flight playback systems formed the basis for a fuzzy logic manoeuvre-stress correlation algorithm. The database component provided for the warehousing of more than 1 million files involving 15,000 Gigabytes of information.

Institute for Research in Construction

Researcher/Systems Analyst: Developed seismograph analysis algorithms and programs for earthquake analysis system on an IBM 3090 under VM using REXX, FORTRAN, DISSPLA and IMSL. Completed the redesign of a structural vibration spectrum analysis system on an IBM 386 under DOS using BASIC, GPIB and HPGL. Implemented an ORACLE based publication distribution system for the dissemination of the Canadian Building Code Standards and related documents. Maintaining over 100,000 client records including their histories and their preferences.

SIMON FRASER UNIVERSITY, Vancouver, 1984-1987

Researcher (87-88): Theoretical nonlinear optics, specifically the study of picosecond pulse propagation in bistable optical fibres. Considerable software development in FORTRAN77 was required to accomplish the large scale numerical simulation of the pulse behaviour on an IBM 3090 under MTS.

Researcher (Master's Program, 84-87): Theoretical hydrodynamics, investigation of nonlinear aspects of radiative shallow water waves. This research explored the mathematics of the Spectral Transform method for solving nonlinear partial differential equations with specific application to the KdV equation.

Tutorial Assistant (83-86): Provided tutorial assistance to students in first through fourth year university; Department of Physics.

## **COMPUTER BACKGROUND**

Languages: C, C++, Fortran, PL1, APL, HTML, Clipper, 80X86 and 78C10 Assembler

Operating Systems: DOS, Windows, OS/2, UNIX (AIX, BSD), VMS, VM/CMS

Databases: Xbase, SQL, ORACLE, Ingress

Networks: TCP/IP, IPX/SPX, DECNET, X.25

## **PUBLICATIONS:**

Co-Author of articles in the August 1988, and October 1989 issues of the IEEE Quantum Electronics Journal and February 1989 issue of Optics Letters as well as several NRC internal reports.

## **HOBBIES:**

Squash, cycling, snowboarding.

## **REFERENCES:**

Available on request