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Personal summary
I see opportunities, not problems.
My careers have all been about helping people reach their goals, solving problems, and extending capability.
I'm looking for work that is creative, socially beneficial and flexible.
I have over 10 years experience in UX design in both the public (ACC, CAA) and private (Westpac Bank) sectors.
I have also designed and managed websites across both the private and public sector, most significantly with the Metservice weather channels and the NZ Government website. I have also designed self service user experiences in the financial sector across multiple channels/platforms. I have designed/developed a number of eCommerce solutions and have experience in agile.

I previously designed electronic solutions for nuclear, industrial and other diverse science areas, and carried out research into smart composite materials.

My experience and skills are varied and unusual, and allow me to bring a lateral view to my work, and I look forward to the next challenge.

Board member - Eastbourne Community Board (elected). Focus on Emergency Management / Resilient Communities.

Founder / Director / Developer - Resilient Radio Enterprises (current/part-time)
Development of an FM radio station in a suitcase for use in community emergency response and recovery. Largely autonomous the radio station is self contained running from solar or other power sources. Can be used for normal community broadcasts with remote switching to emergency mode when needed, with both preloaded messages and the ability to upload information via a number of redundant channels. One option is satellite control making it an option for supporting extremely remote communities such as vulnerable Pacific islands.

User Experience Designer (UX) – Civil Aviation Authority of New Zealand (CAA) (2018-2019)
Providing advice on design processes and UX as part of the project process. Produced initial designs for self service 360 degree platform. Registration via RealMe, delegation, certification, payments, reporting, alerting, interaction with CAA, payments.
Worked with CAA on apps, website, and setting up design tools such as principles, pattern library etc.

User Experience Designer (UX) – Accident Compensation Corporation (ACC) (2016-Nov 2017)
I was responsible for UX design for Business Customer Self Service, working as part of a team focussed on making online self-management of ACC levies and policies the primary channel for interactions with ACC. This is planned to be a 360 degree platform with access for agents/agencies and also ACC support staff.

- Research/interviews
- Design

- Wireframes/interactive
- Testing
- Pattern development

Projects
- Self employed/First invoice
- Sensitive claims
- Provider invoicing
- CoverPlus Extra
- MyACC for Business (owner/agent/staff)

Tools
- Fireworks
- Balsamiq
- Atomic

User Experience Designer (UX) - Westpac NZ (2008-2015)
I worked as part of a team designing complex self service processes to allow customers originate and manage financial products. Channels included online banking (Westpac One) on desktop, tablet and mobile devices using responsive sites, apps for mobile, and ATMs. Design work involved:
- Requirements analysis,
- Solution design,
- Wireframes,
- Prototyping,
- User testing (formal and informal)
- Detailed design,
- Pattern definition/documentation,
- Legal signoff,
- Testing,
- Tool development.

Major projects mainly involved origination of financial products such as
- KiwiSaver application,
- transactional/savings accounts, special feature accounts
- PIE and Term Investments (including reinvestment),
- home and personal loan applications,
- credit card applications.

I was also involved in
- creating and amending payments,
- downloading statements,
- payee management,
- FX payments and
- various ATM processes.

Design work was carried out using tools such as
- Balsamiq
- Fireworks / Illustrator / Indesign
- prototyping in Javascript and LAMP platforms

During this time we moved from a paper based documentation process to an electronic collaborative format using Confluence (wiki) and Jira (agile tools).
This design driven innovation is now a corporate standard. Project management moved from waterfall to agile (last 3 years) so I have experience in both.

The online team structure was very flat/egalitarian, and at various times I was responsible for managing other team members, a role which was largely administrative.

Senior Analyst/Programmer at Metservice NZ (2001-2008)
I designed, developed and managed a number of B2C and B2B websites for Metservice, working closely with both other IT and especially marketing staff.

Many of these sites ran off a purpose built **weather data engine** (WISE) I developed initially for the international B2B market, but subsequently used for other critical projects.

The WISE engine allowed highly sophisticated weather content and sites to be assembled using admin dashboard, including graphical and tabular content, any timezone and combination of units. The engine allowed easy integration of customers business rules and data to create data customised to the users needs. Customers ranged from energy companies, road marking, aviation, tourism, marine, transport, agriculture, film and even WRC (World Rally Championships).

- **CupMet** - specialist forecast site for Americas Cup syndicates.
- **MetraWeather** - international customisable weather service (used WISE Engine)
- **MetConnect** - New Zealand B2B (business to business) customisable weather service (used WISE Engine)
- **VodafoneLive** - mobile weather service (predated smartphones), first use of animated content.
- **Metservice.com** public site (10th busiest in NZ), included user customisable weather pages (used WISE Engine).

These sites won several **TUANZ and Computerworld awards** for innovation and customer service (I later became a **judge** for these awards)

Sites were mainly developed on LAMP (Linux, Apache, MySQL, PHP) platforms with Javascript and Flex content client side. As a senior developer I mentored junior staff from time to time.

Senior Internet Programmer at Helios Communications/Simpl Group (1999-2001)
I was involved a range of commercial projects using mainly ASP and Oracle including:

- Asset Management Portal
- Insurance Broking System (FMG)
- Reporting systems for the National Library.
- Maritime Safety website
- Ecommerce site eNeedle.com

I also served as a consultant on the working party to develop an **eGovt Portal Strategy**.

Manager of NZ Government Online/ Oracle DBA (1997-1999)
I had full (sole) management responsibility for the government website including operation, content and any online enquiries.

- Daily management of www.govt.nz, including IT support (contract).
- Responding to all enquiries received via the site
- Reported directly to the CE Internal Affairs and the Chief Executives Forum.
- Responsible for liaison and support of upwards of 200 government agencies represented by the site.
- Hosting government sites.
- Creating and publishing content
- Trained as an Oracle DBA

- Managed both the DIA Oracle Financials and Lotteries Grants Boards databases.

Consultant / contractor (1995-1997)

- First online “database” driven catalogue / booking system for the NZ Film Festival site,
- Multimedia training CDROM for BECA
- Advice / technical support on web sites to a variety of organisations including VUW.

I also won the **inaugural NZ Website design award** for my site on windsurfing in NZ, the first of several awards..

Previous roles and other activities (1973-1995)

As a scientist working for the **Institute of Nuclear Sciences** (now GNS) and **Industrial Research** (now **Callaghan Innovation**) I designed , built and programmed custom and multipurpose computers, controllers and instrumentation systems for a very broad range of research areas. I also managed an electronics laboratory with a number of technical staff.

My work encompassed nuclear, geological, geothermal, biotech, transport/alternative fuels, agritech and materials performance electronic solutions, both hardware and software. In the latter part of this phase I also carried out research into non-destructive testing of composite materials (fibre reinforced) and the development of smart composites.

I wrote numerous manuals, articles (both professional and popular), patents, and worked with numerous other organisations who used my designs.

Control, measurement, data acquisition and analysis of

- Tritium electrolysis (control)
- C14 liquid scintillation counter (control, acquisition)
- Potassium Argon flame photometer (changer design, control, acquisition analysis)
- Aldermaston mass spectrometer (control - IEEE488, acquisition)
- CO2 sampling station - Baring Head (acquisition, logging)

The work involved developing our own microcomputer including all hardware and software. This computer was used by several other divisions and also built by individuals as personal computers.

- All hardware including modular cards, backplane, video display, keyboard...
- Operating system (tape and disk)
- INSBasic (developed from a simpler version from Lawrence Livermore Labs.)
- Peripherals
- Math co-processing
- Hardware digital test tools

In the transport area I developed a number of systems for testing and data logging:

- Autolog datalogger - alternative fuels in-vehicle datalogger system (commercial)
- Dynopak - hydraulic based portable rolling road (used for cars, tanks)
- CNG pressure tank testing system (video)
- Fuel injection pump controller
- Coal Tar Hydrocracker/Methanol-to-Gasoline Plant control

General work included design of hardware and software for a range of industrial testing and control systems, development of general purpose and specialised dataloggers, setting up computer networks, and a variety of software converters and solutions.

Finally I worked in the area of materials performance, providing software and hardware solutions to various research projects as well as my own work in the investigation of **acoustic emission** (AE) as a non-destructive testing technique applied to fibre reinforced plastics.

- Comparison of PZT and PVDF sensors.
- PVDF sensor geometry and smart composites
- Support for the local composites industry and the Non Destructive Testing Association (NDTA)

EDUCATION/QUALIFICATIONS

Completed qualifications:

- BSc Otago University 1971
- Restricted Electrical Registration (not maintained)

PROFESSIONAL MEMBERSHIPS

Formerly:

- Individual member of TUANZ (former Judge in TUANZ Awards)
- Member New Zealand Scientists Association
- Assoc. Member of the New Zealand Computer Society
- Senior Member New Zealand Electronics Institute and member of the National Council, representative for NZEI on the Engineering Associates Registration Board (EARB)
- Corporate representative, Non Destructive Testing Association (NDTA)
- Corporate representative, Composites Association of N.Z.

ADDITIONAL TRAINING

- Atomic
- Writing for the web
- Software Testing
- Oracle Database Administration
- Multimedia Project Planning
- Information Mapping
- Thick Film Fabrication.
- Autolisp (Autocad computer aided drafting programming language).
- C programming language.
- Integrated circuit design. Programmable Gate Arrays (Xilinx)
- Time management.
- Project management.
- Fibre Reinforced Plastics fabrication.
- Labview/Labwindows programming
- Effective Business negotiation
- Telemetry and Data Acquisition Systems

PREVIOUS TECHNICAL SKILLS / EXPERIENCE

- Atomic, Balsamiq, Fireworks, InDesign, Illustrator
- User experience (UX) design, information management, user interface (UI) design
- Database administration (Oracle on Sequent platforms, SQL Server on NT, mySQL on Linux)
- Systems Admin (Unix Linux and NT) and Network admin.
- Web programming – Flex, ASP, Perl, PHP, Javascript (client and server side), VBScript, SQL (Oracle), PL/SQL, Java, JSP
- HTM, CSS, Frontpage, web page design, help file and technical writing.
- Information Mapping

- Digital electronic design
- Analog electronic design
- Non Destructive Testing techniques, specialised in Acoustic Emission.
- Microprocessors (F8,Z80,8085,1802,SCMP,8051,8088,6301 etc)
- Programming languages (assembler, BASIC, C, AutoLISP, PASCAL etc)
- Programming tools (Lotus 123, AUTOCAD, EAGLE(PCB), LABVIEW, LABWINDOWS, VisualBASIC etc.)

HOBBIES/INTERESTS

- Designing/setting up a LPFM radio station for my community with the specific feature of providing information during emergency situations.
- Managing a radio network within my community for emergency management/response.
- Creating a local watersports facility (windsurfing, kitesurfing, SUP, kayaking) for those without the support or resources to try these sports.
- Standing for Community Board in Local Body elections (2019)
- Currently working on several projects relating to IoT (Arduino/Raspberry PI/other). These largely relate to actual problems I have encountered which do not seem to have been solved well yet. Industrial IoT is also potentially a huge growth area so it's an educational process as well.
- Mobile application programming - related to IoT projects.
- Building a 3D printer - a good way to learn about the technology, and relearn some skills that have probably got a bit rusty.
- Technical writing - I think I've got quite a bit of experience and learning to share and would like to do so.
- Health/fitness - I'm not great on gyms etc. but enjoy structuring productive exercise into my day. In my previous work I commuted 50km/day by bike most days (winds under 40knots), I estimate I've ridden the equivalent of twice around the world in the last 8 years. That feels good.
- Windfoiling, windsurfing, kiteboarding, (9 years as President of Windsurfing NZ)
- Active in cycling communities and advocacy.
- Involved in local emergency management planning.
- Member of Lions and Eastbourne ports and Services Club (in support of other interests).
- Sailing, stand-up paddling, orienteering, cycling, tramping.
- Honorary Enforcement Officer (harbour) Wellington Regional Council.
- Web hosting / development – I currently host sites for several SMBs and organisations at no cost.
- Electronic design / IoT, mobile App development
- Reading.