

# Bernd Wechner – Automation Engineer

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## Skills

Math and Physics, Software Engineering, Programming, Networking and network management, Project management, Team management, Technical writing, Training course design and delivery, Quality assurance, Process automation, Language and cultural awareness.

## Professional Summary

### Automation Engineer

I am a great champion of automation where it is possible. I cut my teeth on supervisory automation systems for cold rolling steel mills (FORTRAN on MicroVax VMS) and more recently was automating software testing for Echoview (Hydroacoustic data processing software with strong stability) including UI automation. I actively automate server management tasks dominantly in bash and Python. I have consistently resisted the false economy of not automating. With very few exceptions such resistance has been predicated on the false premise of no repetition foreseen. **My mantra:** When should you automate? When you can. You will not regret it.

### Full Stack Developer

With a masters degree in Information Technology and Telecommunications, I manage a LAN, with servers, and develop websites for personal and community use. Strengths include all levels from bare metal up to the UI (though I favour good designers for UI work support). My favoured stack at present includes: Ubuntu, Lighttpd, uWSGI, memcached, PostgreSQL, Django and naked JS client side with modest jQuery support. I have worked with Redhat, MS-Server, Apache, IIS, ASP, C# .NET, PHP and can bring into service any framework on demand of course, not least any of the front-end frameworks be that React, Angular, Vue, Svelte ... they all require modest familiarisation effort.

### Quality Assurance Manager

I started formal testing on payphone systems, have professionally tested Tasmanian Government websites in development, supported development of a regression testing automation system, managed a quality assurance team across three corporate divisions (stable software releases, venture software development and hardware measurement systems), implemented testing in Python and with Django and with pywinauto and Selenium (browser testing). I champion quality both hands on and at a policy and organisation level.

### Technical Writer

I have co-authored a few papers, written extensive technical documentation for and the English help systems for the payphone management systems REMAS III, and for the Hydroacoustic data processing software Echoview and managed delivery of same for the Data fusion software system Eonfusion. I have written extensive internal documentation on algorithms have also written extensive material in support of training courses, and published research on Suite 101 and publish on dev.to today, and may start up on substack some time. My preferred tools for mathematical documentation are LaTeX in the LibreWriter at present.

### Software Trainer

I developed and delivered training courses for payphone management systems in English, German and French, and subsequently for hydroacoustic data processing software (Echoview). I have delivered training courses across the world and online and presented at numerous conferences and trade shows.

### Software Project Manager

I brought Eonfusion project (a data fusion software product) to market, on budget, on time by implementing McConnell's 3-point estimation PERT variant training teams in its use and professionals to deliver off the cuff estimates comfortably, and useful for planning (the power of best, worst and most likely case estimation). I have completed numerous management courses (People in Projects, High Performance Communication, Practical Project Estimation, Project Management Advanced, CMMI-SE/SW for Senior Managers).

## Career

2019 — 2024	Quality Assurance Engineer, Echoview Software Pty. Ltd.
2015 — 2019	Global Partner Manager, Echoview Software Pty. Ltd.
2015 —	Full Stack Developer, Self-driven side gig
2011 — 2015	Global Sales and Marketing Manager, Echoview Software Pty. Ltd.
2010 — 2011	Sales Support (Infrastructure and Asia/Pacific), Echoview Software Pty. Ltd.
2006 — 2010	Project Manager, Myriax Software Pty. Ltd.
2003 — 2010	Manager of Support, Quality Assurance and Documentation, SonarData Pty. Ltd.
2002 — 2003	Manager, User Support and Training, SonarData Pty. Ltd.
2002	Test Engineer, Dytech Solutions Pty. Ltd.
2000 — 2002	Software Engineer Larrisun Pty. Ltd.
1998 — 2000	Customer Support Engineer, Landis and Gyr Communications
2000 — 2001	Traveller Australia
1997 — 2010	Company Director, Larrisun Pty. Ltd.
1997	Technical Consultant, BHP Research
1995 — 1996	Telecommunications Engineer, Swiss Telecom PTT
1995 — 2003	Contributing Editor, Suite101.com
1993 — 1995	Traveller Asia and Europe
1992 — 1993	Research Engineer/Liaison Officer, BHP Sheet and Coil Products Division
1991 — 1992	Traveller Europe
1986 — 1991	Research Engineer, BHP Sheet and Coil Products Division
1983 — 1986	Mechanical Engineering Trainee, BHP Coated Products Division
1979 — 1980	Newspaper delivery, Northwest Star

## Experience

### The SonarData/Myriax/Echoview years

#### Quality Assurance Engineer, Echoview Pty. Ltd. 2019-2024

Having revised all the sales processes, infrastructure, tools and built a solid reseller network empowered to demonstrate and quote independently, I yearned for more creative expression once more and negotiated a return to the development team into one of the least developed areas therein, Quality Assurance. In my tenure there I focused on:

1. **Automation:** Using Python to integrate with our existing infrastructure including integration with Microsoft Access, Subversion, Gitlab, Jenkins and UIA (to automate User Interface testing) and more.
2. **Rigour:** hand in hand with reducing manual steps to automated steps in test procedures much greater rigour (reduction in human error and human limitations)
3. **Data Science:** Complex (in both senses of the word) mathematical implementations like wide-band analyses (analysis of wide-band hydroacoustic data) were in my camp as well as binary data file analyses (echosounder data files supported by Echoview).

## The Steel Years

**Research Engineer**, BHP Sheet and Coil Products Division 1986-1993.

Research and development work in cold rolling technology, specifically applied to the five stand tandem cold mills at the Port Kembla and Western Port steelworks. Extensively involved in the commissioning of the Coupled Pickle Line-Cold Mill (CPCM) at the Port Kembla works, a unique project in its time.

Responsibilities included:

- mathematical modelling of cold rolling processes
- development of predictive software (for off-line analysis of mill behaviour and product quality)
- **implementation and maintenance of automation software** (for on-line prediction of mill set-up parameters and dynamic adaption of the supporting models)
- construction of a mill database and associated software (for the collection, retrieval and analysis of data)
- liaison with production personnel on behalf of the Research and Technology Centre
- management of the Internet and Usenet interfaces.

During the course of my work at BHP *I developed one of the earliest event-driven languages* in my experience, to facilitate the development of user interfaces on VAX machines. Similar and much more expansive systems have since appeared on the market, of which Microsoft's Visual Studio languages are a strong example.

I was appointed liaison officer between the Production crews and the Research and Technology Centre. The two cultures did not communicate well, factory floor culture vs. the math whiz culture, and I bridged them well.

## Education

**Master of Engineering (IT&T)**, Flinders University of South Australia 1995-96

**Bachelor of Engineering (Mechanical)**, Honours class II, University of Wollongong 1983-86

**Higher School Certificate**, Physics prize, Engadine High School 1981-82

**Junior School Certificate**, German prize, Mount Isa State High School 1978-80

## Personal Details

**Date of Birth:** November 12, 1965

**Place of Birth:** Kempten, Bavaria, Germany.

**Nationality:** Australian, Swiss

**Marital Status:** Married (de facto) with three children (2003, 2013, 2017)

## Context of This Document

This is a 3 sheet resumé, being a very targeted extract of key points relating to the role of Automation Engineer.

It consists of extracts from a full Curriculum Vitae of 7 sheets, which is available for drill down or further details, should this targeted rendition pique further interest.

The complete Curriculum Vitae as well as other targeted extracts are all available at:

<https://bernd.wechner.info/Professional>

The full body of professional experience is also up to date at:

<https://www.linkedin.com/in/bernd-wechner/>

and:

<https://www.seek.com.au/profile/bernd-wechner-MS1cwNZM1M>

respectively, the two most important professional employment related sites in use today in Australia.