# Bernd Wechner – Full Stack Developer

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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

### 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.

### 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.

### 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 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).

### Mathematical Modeller

An A-grade math student, with the school Physics prize, and a degree in Mechanical Engineering, I modelled the cold steel deformation process (a system of simultaneous non-linear differential equations) using polynomial approximations in a time before desktop PCs (pencil and paper and micro-computers implementing said model in FORTRAN - it is quite likely still in service at the cold rolling mill at BHP in Port Kembla). I have studied Microsoft's TrueSkill Rating system (a Bayesian algorithm and generalisation of the ELO Chess ranking system) extensively and have been documenting it openly. I headed-up the validation of wideband signal processing algorithms at Echoview.

# Career

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| 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

## Ongoing

**Full stack developer**, Self-driven side gig 2015-

Because I found Microsoft's TrueSkill algorithm implemented in Python and the Django web framework I whipped up a quick website to manage learderboards for our local games group. Running hand-me-down servers from my basement I was soon hosting numerous services focused not on the (in)famous LAMP stack (Linux, Apache, MySQL, PHP) but what I coined as the LLUPP stack (Linux, Lighttpd, Uwsgi, Python, PostgreSQL), behind an OpenWRT reverse-proxy. I have maintained a live and sandbox server since and run various services from them primarily on that stack but also doses of PHP thrown in so LLUPPP.

## The SonarData/Myriax/Echoview years

**Sales Support** (Infrastructure and Asia/Pacific), Echoview, Echoview Pty. Ltd. 2010-2011

Enhanced and maintain the in-house developed License manager (ASP, C# .NET) and support direct sales taking on the Asia/Pacific region of direct sales and managing a small number of resellers in that region. Continued to maintain the in-house License manager until 2024.

## The Telecommunications years

**Telecommunications Engineer**, Swiss Telecom 1995-1996.

Developed a GSM tuning package (Tuny) for the display and navigation of measured radio signals and simulation of GSM handover decisions based upon them. Extensive work with GSM radio resource management and Visual Basic. This project was highly successful, and provided the basis for winning further contracts for the radio-tuning group at Swiss PTT Research (now Swisscom).

## On the Move

**Software Engineer**, Larrisun Pty. Ltd. 2000-2002

Developed, under own initiative:

- a generic on-line database system intended for the public domain
  (a non-profit motivated venture used by the Tasmanian Greens)
  with Perl, HTML, and Apache on Linux and Windows 98.
- an enhanced web based email client
  (a personal contribution for use by my University Alumni )
  with PHP and Apache on Linux.

## The Steel Years

**Technical Consultant**, BHP Research 1997.
**Company Director**, Larrisun Pty. Ltd. 1997-2010

As the sole director of Larrisun Pty. Ltd, provided consulting services to BHP over two months, developing a strip flatness prediction model (used in the rolling of sheet steel), implementing a prototype and training production and research personnel with regards to rolling automation software and theories. Purchased a shelf company (Larrisun) for the delivery (ultimately folded in 2010 for lack of utility and maintenance overheads).

Departure: fixed term contract for a fixed delivery.

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

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.

Departure: resignation on account of a deep desire to travel and see the world.

# 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 Full Stack Developer.

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-MSlcwNZM1M`

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