

JEREMY BOWDEN

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ABOUT ME

With 20 years' experience in Engineering Design I'm able to bring a range of transferable skills, for example analytical skills and attention to detail. After enforced redundancy in 2017, an interest in computing and programming led me to seek a fresh start in the technology sector, which I find exciting and rewarding. I am learning with courses that develop all-round coding skills as well as language syntax, which I hope will enable me to find a front- or back-end, full-stack, or data analysis role where I can apply my zest for problem-solving through code.

TECH SKILLS

Selected Projects (refer to the Projects section of my website for further details)

My self-coded website www.jeremybowden.net shows how I've put the HTML, CSS and JavaScript I've learnt into practice.

[Beaver Scout Directory](#) is a C# / .NET Core web app, with a database that stores member's details and allows a registered user to edit their own details. Hosted on the Azure cloud.

A [web scraper](#), which started life as a Node command-line tool, but is now a full-stack project using the Express framework as a server.

[Anagram Maker](#), a program for creating anagrams from user input, written in C.

[Mashup \(a local news web app\)](#) displays news items on a map using back-end Python code and the Flask framework to access Google APIs and an SQLite database, then rendering it in the web browser with front-end JavaScript via AJAX.

[Finance \(a share-trading web app\)](#) uses Python code to create, change, and delete data in an SQLite database and access APIs for real-time share prices, and JavaScript to display it in the web browser.

[Pong](#) is my one-player version of 'Pong', using Scratch!

Training

An assortment of online training resources including **edX** (CS50x Introduction to Computer Science), **Mozilla Developer Network** (HTML / CSS), **Pluralsight** (.NET Core) and **TeamTreehouse** (Full-Stack JavaScript techdegree).

- Algorithms (including sorts and searches), computational complexity, memory management (pointers), structs, the call stack, data structures, web services, APIs.
- C, HTTP, SQLite, Python, Flask, Ajax, RegEx, Scratch.
- HTML5, CSS3, JavaScript, jQuery, AJAX, Node.js, Express, Git, GitHub, templating.
- C#, .NET Core MVC, Entity Framework Core, Azure.

EXPERIENCE

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|-----------------------|------------------------|------------------------------------|
| • Dec 2005 - Jun 2017 | Senior Design Engineer | JLG Industries, Leicester |
| • Mar 2004 - Dec 2005 | Design Engineer | Caterpillar UK, Desford |
| • Dec 2000 - Feb 2003 | Design Engineer | International Radiators, Leicester |
| • Nov 1999 - Dec 2000 | Design Engineer | Dennis-Eagle Ltd, Warwick |
| • Oct 1996 - Nov 1999 | Development Engineer | Dunlop Suspensions, Coventry |

Key Engineering Skills

- Analysis of strain data from vehicle tests to improve product design
 - Reduce product design cycle time and cost by testing on rigs rather than vehicles
- Computer Finite-Element stress analysis to improve product design
 - Analyse behaviour of parts; reduce test time; fast response to real-world failures
- Dynamic computer-modelling of hydraulic systems
 - Reduce test time and cost; predict where failures will occur
- Resolve failures using '*Eight Disciplines*' methodology (8D)
 - Identify root cause of failure; prevent repeat failures; manage end-user's products

Soft Skills

- Self-managing and prioritising my time and workload
- Chairing design reviews, product improvement sessions, new product introduction meetings
- Version control of documentation using cloud-based database
- Coaching colleagues (e.g. product-lifecycle software; CAD software)
- Creating and maintaining business documents (e.g. Bills of Materials; test specifications)
- Working to deadlines (e.g. prototype vehicle builds; design freezes)
- Responsibility of ownership of work (e.g. "cradle to grave" component design)
- Working within global teams across time zones and continents

EDUCATION

BEng(Hons) Automotive Engineering Design, Class 2:2 Coventry University 1992-1996

Mechanical engineering and design; group and individual projects in automotive applications.
Stress analysis, design, materials science, maths, business economics, CAD.

A-levels and GCSEs Burleigh College, Loughborough

A-level Maths/B, Physics/E, Design/E

GCSE Maths/A, Physics/A, Design/A, French/A, Humanities/A, English Language/B,
English Literature/B, Chemistry/C

ACTIVITIES

Music (listening, playing, composing), cooking, reading, cycling, pilates, Beaver Scouts leader, family.

REFERENCES

Professional and Personal references are available on request.