

# BEN ELGAR

45 ST JOHN'S ROAD, CLIFTON, BRISTOL - BS8 2HD  
+44 (0)7544 854390 ME@BENELGAR.COM

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## EDUCATION

University of Bristol

October 2012 – June 2016

*Computer Science – Predicted 1st Class Honours Degree*

- Elected President of the Computer Science Society and Course Representative by my peers
- Covers theory of systems design including requirements and configuration management
- Selected a big data project to provide a cloud-based data analysis platform for a client
- Elected to take modules in both Machine Learning and Artificial Intelligence in third year

Jerudong International School, Brunei

June 2001 – June 2012

*Primary & Secondary School*

<b>A Levels:</b>	Maths	A	<b>GCSEs:</b>	5 A*s, 4 As, 1 B
	Further Maths	A		(Including English, Maths,
	Computing	A		three Sciences and French)
	Physics	A		
	Chemistry	B		

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## EMPLOYMENT & EXPERIENCE

CPD for Teachers, Bristol, UK

May 2013 – Present

*Programming & Robotics Instructor and Lead Web Developer*

- Work as instructor, content creator and lead web developer
- Teach school teachers to use Raspberry Pi, programming and robotics in the classroom
- Built website involving mass emailing, booking system and e-commerce
- Led a remote team of professional software developers
- Utilised many different technologies including PHP, Laravel, jQuery, D3 and Knockout

Jerudong International School, Brunei

Nov 2011 – June 2012

*Lead Programmer and Web Developer*

- Created a parent-teacher interview scheduling system to resolve timetable clashes
- Utilised technologies including ASP.NET, VB.NET, CSS, HTML, SQL and JavaScript
- Learnt to find out what a client wants and to deliver a project on time

RoboCircle, Brunei

September 2011 – October 2011

*Robotics Instructor*

- Taught robotics workshop open to the general public
- Variety of students – from young children to secondary school computing teachers
- Created different tasks to challenge all students utilising the Raspberry Pi and Python

*Web Developer*

- Designed numerous websites of varying complexity for the school
- Sometimes worked as leader of a team – with a designer and a content creator
- Sometimes worked on my own – designing and implementing everything
- Learnt to distinguish between tasks best completed by myself and those that would be aided by a team

**SKILLS**

	Skill	Comments	Ability
Programming Languages	PHP	Includes use of MVC frameworks such as Laravel	★ ★ ★ ★ ★
	C	Used for majority of coursework assignments and multiple robotics and electronics projects	★ ★ ★ ☆ ☆
	Python	Used for many personal and robotics projects along with coursework assignments including a multi-threaded particle simulator	★ ★ ★ ★ ☆
	Java	Implemented a parser and a compiler and built several small games	★ ★ ★ ★ ☆
	JavaScript	Implemented core functionality for teaching website using D3, Sass, jQuery, Grunt and Knockout	★ ★ ★ ★ ☆
	Haskell	Implemented interpreter and very basic DBMS	★ ★ ★ ☆ ☆
	VB.NET / ASP.NET	Implemented a scheduling system with web interface for automatically scheduling interviews	★ ★ ☆ ☆ ☆
Parallel APIs	OpenMP	Implemented multi-threaded particle simulation using a combination of OpenMP and MPI	★ ★ ★ ★ ☆
	MPI		★ ★ ★ ☆ ☆
	OpenCL	Used with PyOpenCL to implement particle simulation	★ ★ ★ ☆ ☆
Others	<ul style="list-style-type: none"> <li>• Experience with database management systems including MySQL and MongoDB</li> <li>• Experience both building and utilising automated and unit tests</li> <li>• Experience with both Bash and zsh scripting</li> <li>• Experience with version control systems including Git</li> </ul>		

**INTERESTS & HOBBIES**

**Robotics and Electronics**

Enjoy building small robots using the Arduino platform and the Raspberry Pi and experimenting with software defined radio.

including in the Wargames offered by OverTheWire.

**Physics**

I consider myself a keen scientist as well as an engineer and am especially interested in physics. I do my best to keep up to date with the latest developments in the field.

**Information Security**

I regularly attend hackathons and take part in online games and competitions,