**PERSONAL DETAILS**

Forenames: PETER RICHARD Surname: BETTS

Date of Birth: 10th January, 1969 Telephone: 07802 412969

Address: Water Tower Cottage, Tainters Hill, Kenilworth, CV8 2GL

**KEY ATTRIBUTES**

* **Model Based System Engineering (MBSE)**

Team Leader, developing model based system processes   
Creation and deployment of ontologies for model based systems engineering.

* Client needs elicitation, requirements capture, functional and logical architectural development, implementation/ integration development and delivery of product in phases.
* **Project Management**Full control and management of projects (using Jira, TRAC, Mantis);  
  Communicating with stakeholders from marketing, sales, engineering etc   
  Communicating with the client and collaborating on project deliverables and timescales.
* **Version Control Management:** Defining structures for SVN or Git repositories
* **Multi-Disciplined Engineer**  
  Able to communicate at all levels from apprentice to graduate to senior management using a changing language and vocabulary.  
  Many practical skills that cross a vast range of areas which enables me to understand and appreciate what it takes to get a job done.

**Automotive Modelling:**

* **Model Based Systems Engineering** (Using the language of SysML)
* **Matlab / Simulink** (Plant modelling, systems development and integration)

**Automotive/Transport and Marine Calibration and Communications**

* **Engine Management Systems** (Installation and calibration)**.**
* **Communication** CAN, J1939, NMEA2000
* **Dynamometer** (Calibration, Driveability / Road Tuning)

**Real Time Embedded Systems**

* **Programming Languages.**(C, Assembly)
* **Digital Signal Processors, Micro-controllers**
* **Communications techniques**(GSM, GPRS, CAN-Bus)
* **Programming Tools. (**MATLAB, Simulink)

**Mechanical and Electronic Design**

* **CAD Solidworks** (Mechanical Design) and **Altium DXP** (Electronics Design)

**EMPLOYMENT HISTORY (Automotive)**

**Systems-Modelling Ltd** (Consultant) *September 2017-Present*

**Energy Systems Catapult** (Birmingham) *September 2017-Present*

**MBSE Systems Engineering** (using SysML) and Simulink implementations within the Energy Sector. Leading the implementation of an MBSE approach for requirements engineering and Architectural functional and logical design.

**Embed Ltd** *Jan 2014-September 2017*

**Project Management** (Automotive EV, Marine EV and Transportation projects)

**MBSE team leader**, developing the processes and organising training.

Driving the move from document centric development to model based.

**Matlab/Simulink** modelling.

Various Hybrid and pure EV Projects for Automotive and Marine applications.

**Jaguar Landrover** (Gaydon) (Secondment from Embed Ltd) *June 2017-September 2017*

**Senior Systems Engineer** with Electrified Powertrain Systems.

**Model Based Systems Engineering,**Systems lead for multiple features

**Changan UK** (Birmingham) (Secondment from Embed Ltd) *Jan 2014-Feb 2015*

**MBSE team leader**. **Model Based Systems Engineering**, modelling in **SysML**. Designing a hybrid electric vehicle top down from scratch. Communicating with many stakeholders and placing their needs in context to derive the system requirements which in turn forms the system architecture. Adhering to ISO 26262.

**Temporal Reality Ltd** (Consultant)*Jan 2004 - December 2014*

**Chassis Dynamometer calibration** of hundreds of vehicles.

Creation of electrical interface products to maintain **body electrical communications**.

18 Month **Hybrid Electric Vehicle Contract** with Protean Electric. Integrating electric hub motors, battery packs, controllers, providing mechanical design (Solidworks CAD) and integration of DC power cables and communications interfaces.

**THOR Race Engineering Ltd***July 2003-December 2003*

Development of engine control and tuning products using

CAN 2.0B and J1939derivative application layer.

**Architecta Automotive Engineering Ltd** *Feb 2003-June 2003*

Design and development of a vehicle stowaway detector

Using CAN 2.0b as a communications layer.

**TRL Performance** *July 2002-Jan 2003*

Engine diagnostics and monitoring system, designed HW and developed low level and high level CANopen software

**EMPLOYMENT HISTORY (Communications)**

*Feb 2002 - July 2002*

**Nokia Networks Ltd**

Design/Implementation of EPGRS IR in C and assembler

*June 2001 – Nov 2001*

**Hitachi Micro Systems Europe Ltd**

Design and test an EDGE capable mobile handset.

*June 1999 -May 2001*

**Nokia Networks Ltd**

Design, test and integration of a new EDGE capable base station controller

*July 1998 - June 1999*

**Hitachi Micro Systems Europe Ltd**

Design, test and integration of DSP software for GSM mobile phone.

*October 1997 - June 98*

**NEC Technologies (UK) Ltd**

Design and integration of GSM mobile phone, physical layer 1, DSP.

*February 1997 - October 1997*

**Hewlett Packard Labs**

Design of a development system to aid design of a new radio transceiver

*July 1996 - January 1997*

**Nortel (Northern Telecom)**

Discreet MultiTone modem, VDSL, an enhancement of ADSL.

*July 1996 – 2014*

**Temporal Reality Ltd** Consultant

*July 1995 - June 1996*

**RACAL Research Ltd**

Design of an **automatic number plate recognition** system using **image processing** techniques on **Digital Signal Processor** hardware.

*1994* **Senior Design Engineer**, VHF and HF digital Radio Design.

*1992* **Intermediate Design Engineer**

*1990*

**RACAL Communication Systems Ltd**

**Student Engineer,** after graduating from Warwick University

Design/Development/Integration of software for a digital VHF receiver.

**QUALIFICATIONS**

Bachelor of Engineering with Honours in Engineering Electronics.

Warwick University. (2.2) 1990

**TRAINING COURSES**

MBSE using SysML by Prof. Jon Holt and Simon Perry.   
 (spent many months with Jon and Simon developing the MBSE   
 approach used at Changan UK and at Embed Ltd.)

Matlab Simulink  
 Digital Signal Processing, Automotive Networking, In Vehicle Networks,   
 CAN Workshop, Advanced Engine Management

**ADDITIONALS**

Full unendorsed car and motorcycle driving licence.

**HOBBIES**

Karate (2nd Dan in Tang So Do and 1st Dan in Shotokan)  
 Windsurfing (advanced)