**Lee Cryer**

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| PROFILE: |

I am a self-motivated, hardworking automotive engineer, with comprehensive knowledge of modern vehicle electrical and powertrain control systems and vehicle development. Through my different roles I have gained a deep working knowledge of the newest automotive technologies - including High Voltage (HV) propulsion systems - and I have extensive automotive engineering experience. I have the ability to plan and manage the workload and projects of myself and the team, and I have strong technical ability and problem solving skills. I am adaptable to people and changing environments and I like to learn new skills to support my personal growth in my role.

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| KEY SKILLS: |

• Practical knowledge of High Voltage (HV) propulsion and engine management systems

• Good working knowledge of High Voltage system repairs, including working on a live HV battery

* Comprehensive on-board and off-board diagnostics experience and experience in diagnostic development (Guided diagnostics and diagnostics specification authoring, diagnostic services, DIDs, DTCs, routines, MDX and XML files)
* Knowledge of CAN communication systems & analysis / simulation tools (Bosch VSI)
* Working knowledge of Jaguar Land Rover (JLR) and Ford product development system (GPDS, RMDV)
* IT Skills: Highly competent use of Microsoft Office (Excel, Word, Power Point, Visio, Project), e-Tracker, JIRA and AIMS, AutoCAD, Matlab Stateflow, Simulink, ASL, Microgen via Simulink, INCA, CANAlyzer, VFDB
* Able to work unsupervised to a high standard and meet tight deadlines

• Strong team player with excellent communication skills who can build good relationships internally and externally

•   Meticulous attention to detail

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| EMPLOYMENT: |

**Jaguar Land Rover - Bosch Automotive Solutions - Whitley Engineering Centre, United Kingdom**

**Hybrid \ Electric Vehicle Diagnostic Engineer September 2017 – present day**

* Co responsibility for coordinating the work and activities of the team creating diagnostic support for the HV propulsion system of the 18MY Range Rover and Range Rover Sport PHEV and 19MY Jaguar I-Pace
* Setting / validating the requirements for the new HV Diagnostic tools and applications to provide an intuitive graphical user interface and workflow which aligns with the Safe Systems Of Work (SSOW)
* Driving changes to all applications used during HV repairs, including HV Power Down, HV Isolation test, HV Bonding test, Direct Current Internal Resistance (DCIR) test, Battery Module Balancing to improve user experience and eliminate user error for safety critical repairs
* Authoring of complex guided diagnostic tests/flows for JLR Hybrid and Electric Vehicle systems, including;
* Battery Energy Control Module
* Electric Drive Units
* EV Charging System
* DCDC Inverter
* Auxiliary HV Components
* HV Power Down
* HV Isolation
* HV Quarantine
* Requesting enhancements to the diagnostic tool runtime to enable a complete end-to-end guidance for the technicians when working on the High Voltage (HV) system
* Liaising with internal teams (Product Engineering (PE), Critical Concerns, Training) and external suppliers (AVL Ditest, Samsung SDI, LG Chem) to provide the required information, special tools and diagnostic applications at the right time in the right format to create a seamless technician journey
* Mentoring both new and current guided diagnostic engineers

**Jaguar Land Rover Ltd - Bosch Automotive Solutions - Whitley Engineering Centre, United Kingdom**

**Diagnostic Development Engineer January 2016 – September 2017**

* Working in a team to develop the next generation JLR diagnostic tool into a world-class product, creating the authoring policy, workflows and user guide for the authoring environment
* Authoring of complex guided diagnostic flows
* Liaising with the tool supplier, AVL Ditest to investigate issues found in the runtime on and authoring environment - Issue management through the JIRA system
* Working with other JLR departments to create diagnostic content (guided flows) for the Body Control Module including Start Authorisation (Immobilisation), Locking and Alarm systems, aiming to reduce warranty costs and to improve right first time repair rate and customer satisfaction
* Analysing the vehicle feedback data (VFDb) and warranty claims (PAWS) to find the most common failures which then get addressed in the form of a guided diagnostics
* Validating the content of the guided test in a simulated environment (Bosch VSI) or on a vehicle
* Monitoring guided flow performance via VFDB/Tableau and modifying the guided flows as required
* Maintenance of previously authored guided flows and updating as required

**Jaguar Land Rover Ltd – Select Engineering – Whitley and Gaydon Engineering Centres, United Kingdom**

**System and Component Engineer for the Alarm System September 2007 – October 2016**

* Develop and deliver the alarm system across all JLR products
* Introduction of next generation alarm system components
* Authoring of system design requirements to ensure continuous improvement of the alarm system
* Liaise with the Vehicle Certification Agency (VCA) and Thatcham to ensure vehicle sign off for both legal and insurance requirements
* Design Verification Plan creation
* FMEA creation
* Alarm system validation
* Release of the alarm system components through WERS
* Component ownership of Passive Sounder, Integrated Battery Backed Sounder, Interior Motion Sensors and Vehicle Horns
* Liaising with multi-national suppliers
* Multi plant PVT and Manufacturing support.

**Jaguar Land Rover – Valley Forge Ltd - Whitley Engineering Centre, United Kingdom**

**Diagnostics Engineer – Engine Management System (Petrol) January 2007 - September 2007**

* Authoring of the Petrol Engine Management System Part 2 diagnostic specification
* Validating the control unit software on test bench, dSPACE HIL test rig and JLR prototype development vehicles
* Liaising with suppliers – Delphi – and internal teams to ensure the hardware driven and legislative diagnostic requirements are implemented by the required program deadline
* Testing of the engine management system for Part 1 ISO 14229 diagnostic compliance
* Testing of the engine management system for Part 2 diagnostic compliance
* Engine management system compliance to ISO 15031
* EOL, VCATS and rolling road diagnostic support
* Supporting the development of automated (HIL) test rigs and test scripts for EMS diagnostics
* Maintaining eTracker reports, authoring and reviewing DCR (Design Change Request) documents

**Jaguar Land Rover – Valley Forge Ltd - Whitley Engineering Centre, United Kingdom**

**PMST Leader for Vehicle Networks January 2003 - December 2006**

* CAN (ISO 9141 and 15765) system design and integration
* SCP (J1850) system design and integration
* D2B network support and validation
* MOST network support and validation
* DVP and DVM creation for the above systems
* MOST system diagnostic (Part 1) validation and compliance
* CAN hardware and software design reviews (CAN physical layer)

**Jaguar Land Rover – Valley Forge Ltd - Whitley Engineering Centre, United Kingdom**

**Vehicle Networks Engineer January 2002 - December 2002**

**Jaguar Land Rover – Valley Forge Ltd - Whitley Engineering Centre, United Kingdom**

**Senior Technician/Workshop Manager – Diagnostics January 2001 - December 2001**

**Jaguar Land Rover – Valley Forge Ltd - Whitley Engineering Centre, United Kingdom**

**Senior Technician – Diagnostics March 1998 - December 2000**

**Kenilworth Tanker Limited**

**Technician – Electrical and Hydraulic System installation May 1997 – March 1998**

**Peugeot Motor Company**

**Vehicle Inspector (BIW) May 1994 – May 1997**

**Peugeot Motor Company**

**Production Operator (BIW) May 1988 – May 1994**

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| EDUCATION & QUALIFICATIONS: |

**Tile Hill College, Coventry 1997 – 1999**

**HNC Vehicle and Engine Technology**

**Final Year Project:**

Production Quality Monitoring Systems

**Modules included:**

•     Engineering Mathematics •     Drivetrains •     Internal Combustion Engines

•     Vehicle Electronics    •     Project Management •     Manufacturing

•     Vehicle Electrical •     Engineering Physics      •     Chassis and Suspension

•     AutoCAD     •     Material Science •     Industry and Society

**Tile Hill College, Coventry 1995 – 1997**

**ONC Vehicle and Engine Technology**

**Modules included:**

•     Engineering Mathematics •     Drivetrains •     Internal Combustion Engines

•     Vehicle Electronics    •     Project Management •     Manufacturing

•     Vehicle Electrical •     Engineering Physics      •     Chassis and Suspension

•     AutoCAD     •     Material Science •     Industry and Society

**Tile Hill College, Coventry 1993 – 1994**

**BTEC First Certificate - Vehicle Engineering**

**Modules included:**

•     Engineering Mathematics •     Drivetrains

•     Vehicle Electronics  •     Chassis and Suspension

•     Vehicle Electrical •     Engineering physics

•     Material science •     Internal combustion engines

**Peugeot Motor Company 1992 – 1993**

**National Examination Board of Supervisory Management (NEBSM) Certificate**

**Charter House 1992 – 1993**

**RSA CLAIT and IT2**

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| ADDITIONAL INFORMATION/JLR Training: |

* Live Working on High Voltage Systems of Hybrid / Electric Vehicles certificate (JLR Internal certificate)
* Automotive Control System Engineering
* Six Sigma Green Belt Training
* Matlab Simulink
* Matlab Stateflow
* CANAlyzer Stage 1
* CANAlyzer Stage 2 – including CAPL
* CAN Hardware Design
* CAN Software Design
* ASL
* INCA
* Global 8D
* WERS, PACN, SWDL, RMDV, CCF