

# Curriculum Vitae

## Personal Details

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Name	<b>David Leahy</b>	Phone	+44 7794795375
E-mail	leahydavid@gmail.com	Full Driving Licence	
SC Clearance	October 2013	Portfolio:	<b>www.davidleahy.com</b>

## Key Skills

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Usability / Human Factors	Heuristic Evaluation, User Interface Design, Ergonomics, Human Factors, Storyboarding, Wire-framing, User Journeys, Human Factors Integration (HFI)
Web technologies	HTML, JavaScript, Graphic Design
Prototyping / Programming	Visual Basic Development VB.NET, Database interaction, User Interface Development, AXURE, InVision
Expert Systems	Compact Framework / Mobile PC Development, GDI+ Graphics, Animation, SketchUp
Object-Oriented Design	3D Modelling, Visual SourceSafe, Axure
Graphic Design	Knowledge Acquisition & Engineering, Analysis, Coding, Expert System Shells
Databases	UML, State Diagrams, Use Cases
Other	Visio, Paint Shop Pro, Photoshop, Affinity MS Access, SQL, SQL Server DOORS, JACK [3D Anthropometric Modelling Tool], Unity 3D, Integrated Performance Modelling Environment (IPME)

## Personal Statement

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I am not just content to 'do' a job but want to push the boundaries of what is achievable given the newest technological advances. I work well in a team, have been trained in AGILE development. I am adaptable and willing to learn from different team members and their styles of working. I am very approachable and happy to assist and teach others from my own considerable experience. I am also keen to learn new techniques and skills to further self-development.

## Qualifications

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**B.Sc. (Hons) Psychology (2:1)** – University of Ulster, Jordanstown

**M.Sc. Ergonomics** – University of London

Thesis Title: *The memorial consequences of colour coding a Nuclear submarine tactical plan display*

**M.Sc. Information Systems Management** – University of Ulster, Jordanstown

Thesis Title: *An Object-Oriented Domain Analysis of the quotation / costing functions within the manufacturing domain*

## Experience

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**MBDA Missiles, Bristol** - *Principal Human Factors Engineer, UX Lead* Aug 2009 – Jan 2020

- Led the Human Factors Certification effort for, design input and verification of requirements for the newest Royal Naval Sea Ceptor Missile System
- Achieved assessment of T45 Operations Room Activities and Produced Visualisation Application to display in real-time modelled activities in the T45 Operation Room, the first time anyone has produced a visualisation application front end to an IPME executing Model (Presented at Human Factors in Complex Systems Conference, June 2016 and EAAW Conference, June 2017 & 2019)
- Completed multiple Usability Evaluations of military software and proposed usability mitigations and enhancements
- Implemented a UNITY 3D & Virtual Reality design assessment solution for future evaluations (presented at EAAW VIII, 2019)
- Completed successful evaluation of potential Identification Strategy by development of VB experimental test-harness for) the use of Radio Frequency energy signals.
- Wrote the Cognitive Requirements Technical Guide now adopted by UK MOD (HuFIMS) (Received Innovation Award 2015)
- Designed and developed a Workload Measurement Tool to help assess the mental workload of new and upgraded displays and control panels
- Received Innovation Award for the design of user GUIs for MOD metal detector (Vallon) training aids.
- Developed and successfully demonstrated a Decision Support VB Test-bed to conduct experiments on GUIs and decision support issues, capture data and graphically display results for the UK Defence Technology Centre.
- Investigated the potential Use of Uncertainty information for use in Geographical Information Systems
- Designed and specified Shoulder launched missile graphical user interface (Enforcer) - MANPAD
- Designed and developed a complex multi-layered graphical animated game using VB.net in order to train myself on the graphical capabilities of VB.net

- HFI and associated HFI deliverables on Missile Projects
- Designed and implemented an application to perform Perceptual experiments which stored user answers, decision times, and graphically showed the results
- Designed and implemented a test harness to determine the accuracy of aiming and target selection for a shoulder-launched missile (ENFORCER)

**MBDA Missiles, Bristol** - *Human Factors Contractor*, April 2007 – Oct 2008

- Led and presented DTC Research project, into Cultural Awareness / Decision Support, aimed at military users in Afghanistan
- Led Research on future-proofing CFMS program (Computational Fluid Dynamics)
- Programmed animated graphical missile prototype using VB.NET for use as Phase 1 assessment for *Fire Shadow* Missile Development program
- HFI and associated deliverables on Missile Projects

**Foviance (Usability Company), Bonhill St London** - *Usability Contractor*, December 2006 – April 2007

- Cashier work station ergonomic evaluation showing the potential benefits and disadvantages of introducing the technology.

Travel: USA, Australia, New Zealand, Asia and South America, October 2005 – September 2006

**Newchurch, Teddington,** - *Usability Contractor* April 2005 – October 2005

- User Experience input to use case development for HTML based Doctor-patient management System
- Produced and policed style guide for all screen designs
- Designed and coded the JavaScript / HTML dynamic prototype

**IDX, Euston Road, London** - *Usability Contractor*, July 2004 – April 2005

- UX Lead for NpFIT Healthcare Automation Product
- Developed style guide and policed its implementation with screen developers
- Task Analysis / User Testing

**General Dynamics**, General Dynamics, Wales - *Usability Engineer*, July 2003 - July 2004

- Providing human factors input to defence program applications
- Capturing MMI User feedback from subject matter experts and converting to derived requirements

**Marrakech - E-Commerce Company** - Dublin *Usability Team Leader*, May 2000 - Feb 2003

- I was the UX Lead for a small team of usability professionals and turned around a drab, lacklustre difficult to use B2B E-Commerce internet product into an organised, clean and efficient User Interface which End users were delighted with. It resulted in an upsurge of user traffic through the system.

**SoftCo - Documentation archiving software house** - Dublin *Usability Engineer*, Oct 1999- May 2000

- UX Expert for document scanning software interface
- Development of Usability Design Methodology.

**Northern Ireland Knowledge Engineering Laboratory - NIKEL** University of Ulster *Software Engineer*, Pre-2000

- I led a small team which conducted Knowledge Engineering and knowledge elicitation activities with small businesses to develop 'Expert Systems' to capture and implement their heuristic knowledge and make it available to all, increasing efficiency, response times and reducing waste. One Expert System I developed received 2nd prize in the Microsoft Innovation Awards.

**British Aerospace Military Aircraft Division** Kingston, Surrey, - *Human Factors Engineer*, Pre-2000

- Ergonomics input to military aircraft design.
- Specification of Moding and Symbology for the European Fighter Aircraft (EFA) FLIR/IRST sub-system.
- I successfully created a Fault Diagnosis Expert System for Harrier GR5 Aircraft.

**Knowledge-Based Systems Centre**, South Bank Polytechnic, London - *Knowledge Engineer*, Pre-2000

- Development of an Expert Marketing Planning System using an expert system shell, 'C' graphics, and spreadsheet macros.
- Lectured on MMI Design
- Supervised M.Sc. student's projects

## Interests

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I like to keep fit, swimming regularly. I enjoy travelling and have completed 8 'inter-rails' around Europe and 5 round-the-world trips. I more recently have become interested in Genealogy and have conducted extensive research into my family history with many field trips and library research and have recently published books on the subject. In lockdown 2020 I wrote a historical novel based on some true stories from my research (*Sheelin*). I'm also interested in Artificial Intelligence and have taken some online courses on UNITY and AI.

## Publications

<b>Leahy, D.</b>	Sheelin, August, 2020. – Historical Novel (Amazon.co.uk)
<b>Leahy, D., &amp; Vance, C.</b>	Integrated Use of 3D Modelling tools and Virtual Reality to facilitate Design. Engine As A Weapon (EAAW) VIII International Symposium 21 June (2019), London, UK
<b>Vance, C., Hughes, T., Leahy, D.</b>	Improving the warfighting effectiveness of the operations room team. Engine As A Weapon (EAAW) VII International Symposium 21 June (2017), Bristol, UK.
<b>Gupta, M.S., Vance, C., Hughes, T., Leahy, D., Meeks, R. BAE Systems, MBDA and Frazer Nash.</b>	Application of Different Human Factors Methods to Conduct an Audit of Royal Navy Operations Rooms. Human Factors in Complex Systems 7-8th June 2016, NCTL Learning & Conference Centre, Nottingham.
<b>Leahy, D.</b>	The Cavan Leahys:1800-1950: (2018) ISBN-13: 978-0995663046. Amazon.com
<b>Leahy, D.</b>	The Cavan Leahys: Origins. (2016) ISBN-13:978-0995663008. Amazon.com
<b>Leahy, D.</b>	Leahy Land Deed Notes 1708-1950. (2016) ISBN-13:978-0995663015. Amazon.com
<b>Tatlock, K., Leahy, D., Delaney, S., Croft, D., Brennen, S., Doherty, V., Bowyer, S., Fisher, N., McNamara, H.</b>	Specifying the Cognitive Requirements of People in Systems. TIN 2.035 - Challenge 1. DHCSTC Report. (2014).
<b>Leahy, D., and Holding, M.</b>	Use and Representation of Uncertainty in Geographical Information Systems. - Human Factors Integration Defence Technology Centre DTC Report No. HFIDTCPV_T2.3. (2012)
<b>Leahy, D., and Holding, M.</b>	Development of a Decision Support Testbed to investigate human factors issues within C2 systems. - Human Factors Integration Defence Technology Centre DTC Report No. HFIDTCPVIV_T6_6_02. (2011)
<b>Leahy, D. Houghton, R. &amp; Wells. L.</b>	The Human in the Networked Targeting Chain: Pinch points and Decision Support Solutions. - Human Factors Integration Defence Technology Centre DTC Report No. HFIDTCPVIV_T15_02. (2011)
<b>Leahy, D., Parsons, T., Carver, L., Richardson, D.</b>	State of the Art / Vision of the Future. Centre for Fluid Mechanics Simulation (CFMS) Core Programme.TSB Project No: TP/L3001H. Document Number: TP/L3001H/WP18/0006. (2008)
<b>Leahy, D. Borrás, C.</b>	Development of Requirements and a Prototype for a Cultural Awareness Decision Support Tool - Human Factors Integration Defence Technology Centre HFI www.hfidtc.com DTC Report: HFIDTC/2/WP3.1.2/2. (2008)
<b>Z.Jin, D.Bell, E.G. Wilkie and D.Leahy</b>	Automated Requirements Elicitation: Combining a model-driven approach with concept reuse, International Journal of Software Engineering and Knowledge Engineering Vol 13, No. 1, February 2003, pp.53 - 82
<b>Leahy D.G. , Wallace J.G., Mulvenna M.D. &amp; Hughes J.G.</b>	Knowledge-based Assistance for Contract Compliance, IEEE Expert, 12, 2, ISSN 0885-9000, pp58-64, 1997.
<b>Grant, C.A., Leahy, D.G., Bruggen, J.V., (1993)</b>	Selection and Management Tools System Design and Object Specifications, Deliverable D9, Project DELTA D2016 EAST.
<b>M.D. Mulvenna, R. McIvor, D.G. Leahy, J.R.C. Allen, A.G. Buchner, M. Gilmore, J.G. Hughes.</b>	How Knowledge-Based Systems Support Business Process Re-engineering, Re-Engineering for World Class Manufacturing, IMC-13, Hillery, M. T., (ed.), University of Limerick, Limerick, ISBN: 1-874653-38-0, pp309-318, 1996.
<b>M.D. Mulvenna, T.M. Scott, D.G. Leahy, J.G. Hughes. Knowledge-Based Systems And Technology Transfer In SMES</b>	The caged tiger of technology: Knowledge-Based Systems and Technology Transfer in SMEs, Technology Transfer and Innovation 96, Queen Elizabeth II Conference Centre, London, pp 100-110, 1996.