EDWARD JONES

CONTROL SOFTWARE ENGINEER

CONTACT

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PROFESSIONAL SUMMARY

Accomplished Software and Control Engineer with a passion for delivering innovative, scalable solutions across real-time control, embedded systems, and advanced software platforms. Committed to leading technical excellence, driving team success, and solving complex engineering challenges.

CERTIFICATIONS

Certified TestStand Architect
National Instruments

Certified LabVIEW Developer
National Instruments

Engineering Leadership Program
National Instruments

AWARDS

Merit Award - 2017
National Instruments

Special Recognition Award - 2016
National Instruments

HOBBIES

Running, Swimming, Hiking, Warhammer, Puzzles, Coding, Skiing, Travelling and Science

EXPERIENCE

May 2021 - Present — **United Kingdom Atomic Energy Authority**
Control Software Engineer

- Entire delivery of software control for cryogenic test rig.
- Complete re-write of JET Fusion reactor real-time controller, enabling key experiments by unlocking new features.
- Recently integrated AI models into MAST-U reactor control
- Cleaning MAST-U data for AI training for tearing mode prediction in shot/pulse.

Jan 2018 - April 2021 — **National Instruments**
Aerospace, Defence & Government Account Manager
Guided customers through the project design and purchasing lifecycle. Managing across Northern Europe for large enterprise organisations.

Feb 2017 - Jan 2018 — **National Instruments**
Sales Development Engineer
Identified high-potential projects and provided customers with roadmaps to success. Awarded NI Merit Award for fostering a culture of collaboration and competitive camaraderie.

July 2015 - Feb 2017 — **National Instruments**
Applications Engineer
Specialised in diagnosing and resolving complex issues with LabVIEW and NI hardware. Hand-selected for critical case assignments and awarded Special Recognition Award for outstanding service.

EDUCATION

Bachelor of Aeronautical Aerospace Engineering - 2015
University of Leeds
2:1

SKILLS

Programming Languages:	C, C++, C#, Python, HTML, CSS, JavaScript, PHP, Shell, Angular
Platforms & Systems:	Linux, Windows APIs, RTOS, Embedded
Database:	MySQL, SQL
Tools:	AWS, Jenkins, Git, Yocto, GitLab, Docker
Domains:	Real-Time Control, AI/ML, Data Science
Project Management:	Project Planning, Team Leadership, Stakeholder Alignment, Software Lead
Languages:	French (Intermediate), Chinese (Basic)

PAPERS/CONFERENCE

REAL-TIME CONTROL

- Jones, E., Boswell, C., Baker, H. and Stephen, A. (2025). Using continuous integration in the development and verification of a new central controller for JET. Fusion Engineering and Design, 211, p.114782. doi:https://doi.org/10.1016/j.fusengdes.2024.114782.
- Stephen, A. (2026). JET Plasma Control System Upgrade using MARTe2. INIS – International Nuclear Information System, [online] pp.27–27. Available at: https://inis.iaea.org/records/grf4g-zvy61 [Accessed 5 Apr. 2026].
- McArdle, G., Kochan, M., Vincent, C., Stephen, A., Jones, G., Hogben, C., Lucock, R., Goodyear, A., Baker, H., Jones, E., Boswell, C. The Clean Break: Minimising Operational Risk with the Total Replacement of MAST-U Plasma Control System. To be published following IAEA Conference in May.

AI/ML

- Marshall, M., Jones, E., McArdle, G., Alasdair, R. and Amorisco, N. (2026). Real-time plasma shape control via virtual circuit surrogates: integration and testing in the MAST-U PCS. To be published following IAEA Conference in May.
- Callow, N., Stephen, A., Kyrieleis, A., Jones, E., Baker, H., Fitzgerald, K., Jackson, S. (2026). Modular Automated Labelling Framework for an Open-Source MAST MHD Instability Forecasting Benchmark. To be published following IAEA Conference in May.

PUBLIC GITHUB PROJECTS

- **XMARTe:**
  Link: https://github.com/ukaea/xmarte
  Language: Python
  Role: Owner
  Description: A GUI for developing MARTe2 configuration files.
- **MARTe2-python**:
  Link: https://github.com/ukaea/MARTe2-python
  Language: Python
  Role: Owner
  Description: A python set of classes which abstracts MARTe2 entities into objects.
- **Embedded-TDMS-Logger**:
  Link: https://github.com/NIVeriStandAdd-Ons/Embedded-TDMS-Logger
  Language: LabVIEW
  Role: Owner
  Description: A plugin for logging in VeriStand to TDMS in real-time, with meta-data.
- **VeriStand Safety Controls**:
  Link: https://github.com/sudilav/veristand-safety-controls
  Language: C#
  Role: Owner
  Description: Add-on to VeriStand, only of it’s kind, creating new GUI controls.

REFERENCES

Juri De Rooster
Business Unit Lead (Simsol)
Previous Manager
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