

Job Title: **Software Engineer (Static Code Analysis)**

Company: **Aerosystems International**

Location: **Yeovil, Somerset**

Salary: £30,000- £43,000

### **The Company**

Aerosystems International (a wholly owned subsidiary of BAE SYSTEMS) undertakes the analysis, design, development and delivery of complex, software intensive systems. Many of its solutions are mission critical. Aerosystems follows a rigorous approach to the development lifecycle and is assessed by the Software Engineering Institute's (SEI) Capability Maturity Model Integration (CMMI) to Level 5 for Software & Systems Engineering.

Over the last 20 years Aerosystems International (Aerosystems) has established a prominent reputation in the global aerospace and defence communities for creating innovative products and services. We are working on some of the most advanced projects in the world offering smart solutions often in short timescales. The business invests heavily in products and in it's staff and enjoys the rewards of rapid, profitable growth, providing people with challenging and exciting career opportunities. Aerosystems employs nearly 400 staff with offices in Yeovil, Malvern, Warton and Orlando.

Our expertise is focused in the areas of Network Enabled Capability, Sustainment, and High Integrity Software and Mission Support with many of our solutions now in service and combat proven. Key attributes of our approach are flexibility, co-operation and determination, combined with market leading technical expertise.

### **The Role**

We are seeking candidates ideally from an avionics background with real-time embedded safety critical experience, understanding of full life cycle development, experience of Ada 83 (including SPARK Ada) as well as an understanding or experience of formal methodologies. Successful candidates will demonstrate a methodical approach, and a mathematical (or at least logical) leaning.

Aerosystems has developed a set of specific analysis procedures, involving both code inspection and the use of the SPARK toolset. The level of validation varies, but can include inspecting and performing run-time checks on the code, re-modelling the code to ensure that it complies to the SPARK language, and using formal proof to ensure that the code meets its requirements.

Candidates will be asked to perform validation activities on safety critical software (Ada 83) using the SPARK toolset, following those established procedures. This will include the following

- Familiarisation and walkthrough of the source code
- Conversion of the source code to the SPARK language subset where appropriate
- Production of proof annotations from requirements to allow formal proof of the code
- Use of the SPARK Examiner and analysis of errors and warnings
- Use of the SPARK Simplifier tool
- Use of the Proof Checker, plus rigorous arguments where required
- Producing SPARK rules to assist simplification and proof
- Documentation of the analysis, including issues identified with the code

Working knowledge of any of the following would be an advantage:

- Static code analysis,
- SPARK (including formal proof),
- High Integrity software,
- RTCA0178B,
- Def Stan 00-55,
- IEC 1508,
- Interest in QA (not necessarily formal experience),
- Experience in software testing

### **Company Benefits**

Contributory Pension

25 days holiday

Private Medical Insurance

Discretionary bonus

37.5 hours per week, flexible start and finish times

Relocation assistance

**To Apply:**

SHSL is acting as an Employment Business in relation to this vacancy.

Stephen Howe Systems Ltd (SHSL) is a wholly owned subsidiary of Aerosystems. Its remit is to recruit candidates with a diverse array of skills for a number of major UK Clients.

Please apply by sending your current CV and covering letter to **jobs @shsl.co.uk** or to the following address: **SHSL, Aerosystems International, Alvington, Yeovil, Somerset BA22 8UZ.**

To apply for this position, candidates must be eligible to live and work in the UK and either hold or be able to achieve British Security Clearance.