

Job Specification

C++ Software Engineer

Responsible to: Head of Software Engineering

Grade of post: Senior / Junior

Salary: To be agreed

Hours of work: 37 hours per week

Work location: Oakley, Bedford

Role Purpose:

You will be required to support a mixture of R&D and product development activities within a leading autonomy and unmanned systems company. Blue Bear continuously innovates within the core area of Unmanned Aerial Systems (UAS/UAV) such as autopilots, mission systems, ground control stations, and all supporting systems and infrastructure.

You will be keen to get involved in all development areas, and have a good track history / proven track record in both problem solving and quality software development.

Your role as a Software Engineer will involve designing, implementing and testing embedded application and system software. This will include improving existing software and developing new features.

Working as part of a team in a multidisciplinary environment you will have good communication skills. A can-do attitude and a genuine passion for innovative technology will be advantageous. The opportunity will enable the successful candidate to gain knowledge of cutting-edge autonomous systems.

Key Responsibilities

- Primarily, your role will be to design, implement and test real time applications and embedded software for our existing and new products.
- Ensure software redundancy, real-time safety and security objectives are met.
- You will be responsible for delivery of technical work and documentation
- Work as a team to deliver, maintain and innovate the UAV mission system and individual modules within the mission system.
- Get involved in simulation testing, flight testing and bug fixing.

Other Duties and Responsibilities

- To undertake such other duties and responsibilities as may be reasonably required within the grade and level of the post.
- To actively participate in Blue Bear's Performance Management Scheme.
- You will be expected to perform different tasks as necessitated by your evolving role within the company and the overall business objectives of the company.
- Some travel within the UK may be required.

Essential skill:

- Experience with C++ and C on embedded systems.
- Object oriented design and development experience.
- Working knowledge of Linux and/or any other real time operating system.
- Good understanding of development tool chain for debugging and problem solving.
- Quality mindset with a test driven development approach.

Other useful skills for this role:

- Testing and automation experience.
- Some knowledge of Java.
- Team leading and mentoring junior engineers.
- Experience with quality standards (esp. DO-178 or similar will benefit greatly).
- Good communication skills for internal and external technical discussions.

Equality and Diversity

We are committed to the promotion of equality of opportunity in all of our activities and to encouraging access to our organisation from all groups irrespective of the equality strands. We are working to create an environment in which cultural diversity and individual difference are positively valued in an atmosphere free from harassment and discrimination. We take our legal and moral obligations with respect to equal opportunities seriously and welcome dialogue with individuals on ways in which our equal opportunities policies and practice can be enhanced.

Health and Safety

The organisation together with the assistance of all employees are fully committed to developing a positive safety culture.

We encourage and support employees becoming involved in and participating in health, safety and welfare matters. Our goal is to motivate and empower all employees to work safely and protect their long-term health, not simply to avoid accidents.

PERSON SPECIFICATION

Education/Qualifications	S/L	I	A
<i>Desirable:</i>			
• Degree in Software Engineering or SMET discipline (e.g. Maths or Physics) with a demonstrable aptitude for Software Engineering	X		
Knowledge and Experience			
<i>Essential:</i>			
• C++ 11 including Standard template Library (STL)	X	X	X
• Object Orientated Design – Design Patterns	X	X	X
• Modular Design			
• UML Sequence Diagrams		X	
• Ethernet (UDP, TCP)		X	
• Multi-threading	X	X	
• Software development lifecycle – including unit and integration testing		X	
• Refactoring and maintenance		X	
• Regression testing (auto build and auto test frameworks)		X	
• Technical author – requirements, design, test, user		X	
• Mature engineering - quality development		X	
• Configuration Management		X	
<i>Desirable</i>			
• 5+ years of experience (or 10+ years for senior)			
• Linux / Unix environment		X	
• Unit and Hardware-in-the-loop testing		X	
• Java 8 or higher	X	X	
• Unified Modelling Language (UML)		X	
• Enterprise Architect – UML tool		X	
• Integration with electronics		X	
• Avionics background		X	
• Scrum and Agile		X	
• JIRA - Application Lifecycle Management tool		X	
Personal/Behavioral Attributes			
<i>Essential:</i>			
• Ability to work to tight deadlines		X	
• Creative and innovative thinker and planner		X	
• Excellent problem-solving skills		X	
• Team player		X	
• Good analytical and communication skills		X	
• Passion for innovation		X	
• Excellent writing and speaking skills		X	
Other Requirements			
Subject to security vetting to a minimum BPSS level	X		

S/L = Short Listing I= Interview A=Assessment