**Flight Software Engineer**

at Overair, Inc.

Santa Ana, CA

**Company Overview**:

At Overair, we are dedicated to bring next generation sustainable air transportation to everyone.  Our answer is Butterfly, an all-electric vertical takeoff and landing (VTOL) aircraft designed to safely and affordably carry passengers over traffic and congestion.  Butterfly leverages over two decades of VTOL aircraft development, patented VTOL technology, and flight vehicle experience.

Overair believes in the lofty goals of sustainable air mobility and we are committed to solving the hard challenges along the way.  We are building an industry leading team covering an expanse of skills, talents, and expertise in order to build a superior electric VTOL aircraft.  If you enjoy solving difficult problems, and seeing your ideas and visions expressed in flying aircraft, we want you on our team.

**Job Overview**:

Overair is seeking a Flight Software Engineer to play a key role in a small, fast-moving team, writing code and implementing software for our electric-powered, fly-by-wire aircraft. This engineer will help develop the core C++ flight software platform for Butterfly. They will work closely with the hardware, mechanical, integration, and flight-testing teams to design, develop, test and improve system-level behaviors.

This role requires the candidate to thrive in a high paced environment and be comfortable with the design, development, and test life cycle of rapid aerospace R&D.  This role will include interfacing with engineering management, certification authorities, and fellow engineers and analysts, so strong communication and inter-personal skills are required.

**Roles and Responsibilities:**

* Lead development of safety critical, highly reliable software components for EVTOL systems.
* Own software lifecycle, from prototype development to deployed flight software
* Own all aspects of software development, including design, testing, and mission integration
* Participate in rapid prototyping activities to develop and mature new technologies
* Work with a multi-disciplinary team to develop and integrate complex hardware/software systems
* Work with system architects to decompose item requirements into high level and low level software requirements in compliance with DO-178C
* Collaborate with the certification and safety teams to ensure software compliance with DO-178C

**Required Qualifications:**

* Bachelor's degree in computer science, engineering, math, or science discipline OR 2+ years of experience in software development
* At least 5+ years of experience in a related field
* Mastery of C/C++
* Expert knowledge of object-oriented programming methodology, multi-layered system architectures, and creating clean APIs
* Experience developing software on bare-metal systems and Real Time Operating Systems (RTOS), including multi-threaded systems
* Experience with diverse tools and technologies used for the development, testing, and analysis of DO-178C software, including modern integrated development environments and debuggers
* Understanding of git version control
* Hands-on experience through the aerospace software development life cycle
* Experience developing software complying with safety standards like DO-178C, DO-330, or ISO 26262
* Deep understanding of communication standards and protocols (RS-422/485, CAN, ARINC-429, SPI, I2C, etc)
* Familiarity with debuggers and lab instruments such oscilloscopes and bus analyzers
* Experience with board bring-up and driver development

**Desired Qualifications:**

* Exposure to other languages such as: Python, C#, Lisp
* Experience with VHDL and/or Verilog development
* Familiarity with modeling tools like UML or SysML