Stuart Macintosh

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Profile

A highly conscientious and professional software engineer with extensive experience in full stack development, Agile working practices, source control, training and management acquired over eighteen years of service within the Royal Air Force and more recently as a civilian. Specialising in the field of aviation software engineering and analysis while harnessing the power of the Python, C++ and C# programming languages to ensure effective product delivery.

A dedicated software engineer with comprehensive experience of support operations such as test and evaluation, comprising intricate working knowledge of aircraft avionic and electrical systems, familiarisation with associated mechanical systems, and expertise in data management and software engineering.

Combining meticulous attention to detail, established high standards, and exemplary work ethics with a willingness to assume responsibility. Able to analyse complex issues, making timely, accurate, and pragmatic decisions. Rendered with regard to all regulatory policies and procedures, timescales, and within personal scope of authority.

Can work on my own initiative or as part of a team as well as being a responsive leader combining managerial, planning, and organisational talents with interpersonal and people skills, enabling the consistent achievement of objectives. A confident, respectful and forthright communicator at all levels.

Key Skills

- Natural multi-tasker with proven leadership and management abilities who thrives when put under pressure.
- Software engineering utilising Python, C++ and C# programming languages coupled with continuous professional development in the software field.
- Software source control expertise with in-depth knowledge of Git software source control within an Agile framework.
- An excellent working knowledge of a diverse range of avionic, electrical, mechanical and hydraulic systems gained from extensive hands-on experience and theory study.
- Engineering management including inspection, repair, maintenance, modification and capability sustainment.
- Engineering trials management including on and off aircraft software testing.
- Team motivator and mentor, highly proficient in staff personal and professional development.
- Excellent communication skills.

Career History

Systems Engineer (Code)

Inzpire Limited – Lincoln, Lincolnshire
June 2023 to Present

Playing a pivotal role in advancing the development of mission support systems encompassing digital mapping and navigation, safety-critical tools, performance planning solutions, and electronic flight bag products. I offer invaluable subject matter expertise and counsel to both our company and its valued clientele, diligently cultivating and nurturing relationships with business partners, suppliers, and potential collaborators. My responsibilities extend to providing unwavering support for our software products, aiding in the creation of specialized testing and analysis tools utilising a wide spectrum of programming languages. I also take charge of overseeing software code reviews and conducting thorough regression testing. Additionally, I actively contribute to our testing efforts by crafting and reviewing test procedures, managing requirements, and scrutinizing unit tests to ensure maximum product quality.

Software Development Manager - (Management Role) - Eurofighter Typhoon FGR4
Royal Air Force – Coningsby, Lincolnshire
August 2019 to June 2023

Manager of a specialised team entrusted with facilitating seamless communication between Typhoon squadron personnel and industry partners, our mission is to deliver aircraft test and maintenance software applications that not only excel in usability but also enhance efficiency, ultimately saving valuable time. Proficient in Python and well-versed in an array of programming languages, including C++, Ada, HTML, XML, Java Script, C#, and VBA, I possess a comprehensive skill set to navigate the intricacies of software development.

As the team manager, I bear the responsibility of meticulously prioritising, delegating, overseeing, and ensuring the timely delivery of tasks, all while effectively managing the entire software development lifecycle and meticulously planned release strategies. Additionally, I serve as the test and evaluation manager, wielding the authority to provide design assurance that all user and system requirements have been meticulously met. I hold the critical responsibility of approving robust test plans that encompass both reliability and failure testing. In my capacity, I also extend my knowledge by offering data bus and software programming training across all levels of the team, fostering continuous learning and growth within our dynamic environment.

Software Development Lead - (Supervisor Role) - Eurofighter Typhoon FGR4
Royal Air Force – Coningsby, Lincolnshire
August 2015 to August 2019

Lead software developer of a specialised team dedicated to fostering collaboration between Typhoon squadron personnel and industry stakeholders, our core mission revolves around delivering aircraft test and maintenance software applications renowned for their intuitiveness, user-friendliness, and time-saving capabilities. My proficiency spans across multiple programming languages, including Python, C#, and VBA, with a solid familiarity in Ada83, HTML, XML, and Java Script, enabling me to navigate the diverse landscape of software development effortlessly. Within my role, I assume the responsibility for the inception and development of cutting-edge aircraft maintenance software applications. I also take charge of meticulously overseeing and maintaining software source and configuration control to ensure seamless operations. As a seasoned test and evaluation coordinator, I excel in crafting comprehensive and robust test plans that encompass both reliability and failure testing, complemented by concise and informative trial reporting. Furthermore, I play a pivotal role in knowledge transfer, serving as a dedicated trainer across all levels of aircraft data bus maintenance assets, further enhancing the expertise and capabilities of our team.

Education

NVQ Level 3 in Aeronautical Engineering (Avionics Maintenance & Avionic Component Overhaul)
No. 1 School of Technical Training - DCAE Cosford – Cosford, Shropshire
2008 to 2009

A-Levels in Maths & Physics
Driffield Sixth Form School – Driffield, East Yorkshire
1999 to 2001

GCSEs in English (C), Expressive Arts (A), Design & Technology (B), German Language (C), History (C), Maths (B), Science (BB)
Driffield Secondary School – Driffield, East Yorkshire
1997 to 1999

Leisure Interests
Running, Cycling, Hiking, Physics, Computing, Astronomy, Music