Gideon Mbanugo MSc, B.Eng. (Hons)

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PROFILE

I am a self-driven Software Engineer with over 15 years' experience in the development and implementation of structured solutions to meet programme requirements across the full development lifecycle. With specific expertise in the design and development of aircraft equipment systems, I have a proven track record of achievement delivering bespoke business and safety critical solutions. Team focused, I work collaboratively with colleagues and stakeholders at all levels to deliver work to all technical requirements and quality standards within demanding deadlines. I am now seeking a new and challenging opportunity to utilise my skills and to continue to widen my professional expertise.

TECHNICAL EXPERTISE & KEY COMPETENCIES

- **Programming Languages:** C/C++, Ada (83/95/2012), Java, Assembler, SPARK/Checker, C#
- **Design Tools:** Rational Rose,Apex / Artisan / MATLAB Simulink / Rhapsody
- **Unit Test Tools:** AdaTest, VectorCAST
- **Config Tools:** Synergy, Doors/Serena, Git
- **Verification Tools:** PolySpace, Understand Ada/C
- Full lifecycle development of Software applications: planning, tracking and controlling to implementation
- Systems definition at architectural and detailed levels
- Defines strategies for software evaluation and review

- Expertise in diagnostics and analytical problem solving, manages expectations and delivers workable solutions
- Effective planning and organisation skills, looks ahead, deals with shifting demands and adapts to change
- Strong communicator, engages others through the clear translation of concepts to meet the needs of the audience
- Excellent team working skills, supports and motivate others to deliver to a very high standard
- Strong relationship management skills, works collaboratively with stakeholders at all levels

CAREER HISTORY

Software Engineer, Thales Crawley, UK   **Aug 2019 – Mar 2020**
- Working on Crowsnest, to develop Link 16 software, using C++ and Ada 95/2012 where applicable. Automated general operations using perl and bash script to improve productivity. Updated software to introduce new functionalities, and overall software improvement. Area of work also includes development of software for Mil-1553 interface.
- **Tools used:** AdaMULTI, Doors (9.2), SVN, Jira, Ada 95, C/C++, Eclipse.

Software Engineer, Thales Templecome, UK   **Aug 2018 – Aug 2019**
- The development of Network Management System (NMS) software, using Ada 95/2012, to manage Link 16 network. Migrated existing NMS software from Solaris to Linux Red Hat 6.8. Updated software to introduce new functionalities, and overall software improvement.
- **Tools used:** AdaMULTI, Doors (9.2), GIT, X-Motif, Jira, Ada 95, C/C++, Eclipse.

Software Engineer, Salex Lutton, UK   **Nov 2017 – Jul 2018**
- The development of low level communications software, implemented with T2080 multi core processor, for Eurofighter upgrades.
- **Tools used:** AdaCore Ada 95/2012, Vx Works Windriver, C/C++.

Senior Software Engineer, Thales Templecome, UK   **Mar 2016 – Nov 2017**
- The development of Network Management System (NMS) software, using Ada 95/2012, to manage Link 16 network. Migrated existing NMS software from Solaris to Linux Red Hat 6.8. Updated software to introduce new functionalities, and overall software improvement.
- **Tools used:** AdaMULTI, Doors (9.2), GIT, X-Motif,Jira.

Software Engineer, Labinal Power Systems Pitstone   **Oct 2013 – Dec 2015**
- The development of real time embedded Safety Critical Software, for JAS39 to DO-178B level A standard written in Ada 95 for MPC 5554. Developed and applied solutions to improve software to mitigate potential issues after conducting MPC5554 Errata analysis. Managed Software Component Testing developed with VectorCAST.
- Also performed verification on CH53 Aircraft.
- Performed Software Change Impact Analysis on Falcon. Organised re-certification of software.
- **Tools used:** AdaMULTI, Doors (9.2), VectorCAST, Serena (Dimension), MATLAB Simulink.

Software Engineer, BAE Systems Rochester   **Jan 2013 – Jul 2013**

- Development of real time embedded Safety Critical Test Software, for flight controls, to DO-178B level A written in C for Infineon TC1796 and Power PC MPC 5674F.
- Worked on DMA, SPI, EEPROM and External Clocks functionality as implemented by both processors; highlighting/correcting errors where relevant.
- **Tools used:** C, Doors, Enterprise Architect (EA), Synergy (CMS).

Software Engineer, AEC, Rolls Royce Derby,   Sep 2011 – Oct 2012
- Contributed to the development of XWB engine control software.
- **Tools used:** Ada (95), SPARK (95), Artisan, Serena (CMS).

Software Engineer, Thales Optronics   Aug 2009 – Aug 2011
- Ported Detection Processor application software to GreenHills Ada (95) used PolySpace to perform reviews updating code where necessary.
- **Tools used:** PolySpace, GreenHills Ada (95).

Software Engineer, BAE Systems Warton   Sep 2008 – Mar 2009
- Worked as part of the Software Development Team updating the ASTA system to add Aircraft Crypto Variable Management Unit (ACVMU) software.
- Participated in requirements, and system specifications reviews, and produced Software design and code for the ACVMU.
- Updated Digital Map Generator's test environment, to load Maps and operate efficiently on windows or Unix platform as 'standalone configuration'.
- **Tools used:** UML (Artisan), GPS/Ada (95), C++, Doors, Merant Dimension.

Software Engineer, Logica, Leatherhead   Feb 2008 – Sep 2008
- Initially worked with a team of Test Engineers for 6 weeks, performing Unit Tests on the FCBISA software.
- Also worked with the Software Development team to perform code/Test scripts reviews, to evaluate and recommend changes in the software, when code defects were identified, and also provided guidelines on process improvement.
- **Tools used:** UML (Artisan), GPS/Ada (95), Ada Test.

Software Engineer, BAE Systems, Brough   Apr 2005 – Dec 2007
- *Software Development Team:* Involved in coding and design review/update for avionics software at SIL 3 standard for an AJT.
- **Tools used:** UML (Artisan), Ada (95), Perl.
- *Independent Verification and Validation Team (IV&V);* Worked for 11 months for the IV&V team, providing services for Hawk Software Design Authority.
- **Tools /Standards used:** UML (Artisan), Understand (Ada), Mil-498, Ada (on Unix Environment), PolySpace, VectorCAST (Ada), Def Stan-55, SPARK (Examiner/Checker)

Software Engineer, Silver Software Limited, Wiltshire   Oct 2004 – Apr 2005
- Represented the Company at Westinghouse Rail Systems Ltd and provided technical assistance for the full lifecycle development of Safety Critical Railway Software.
- **Tools used:** UML (Artisan), Ada (on Unix Environment), Doors.

Software Engineer, Ultra Electronics Datel, Preston, Lancashire   Jun 2002 – Oct 2004
- *Nimrod Project:* Using SPARK (Examiner, Simplifier and Checker), Ada/C++, VAX/VMS.
- *Pilatus PC-21 Mission Computer:* Using UML (Rational Rose toolset), Unix host, Ada 95/C, RTCA-DO178B Level C.

Software Engineer, General Dynamics Hastings, East Sussex   Apr 1999 – Mar 2002
- *Eurofighter (Safety Critical Armament Controller Software*.
- **Tools used:** UML (Rational Rose toolset), UNIX host, Ada (83) and C, Perl, HOOD, Testmate.

EDUCATION & PROFESSIONAL QUALIFICATIONS

- **MSc Software Engineering** (2011), Brighton University;
- **MSc Computer Systems and Networking** (1997), South Bank University, London
- **B.Eng (Hons)** Computer and Control Engineering (1996), Westminster University, London

- **Associate Degree Data Processing** (Maths/Science) (1989), Greater New Haven Tech, CT, USA
Professional Development:
- Ada (95) Programming Course (Object Oriented Version) (Jul 2000).
- OOAD Version 4.0 Rational (Aug 1999)

ADDITIONAL INFORMATION

- Activities: Playing football weekly with a 5 a side football team and has completed 70+ Parkrun run.

REFERENCES AVAILABLE ON REQUEST