

# William Blalock

## **RF Engineer: Technical Analyst: Electronics Engineer**

Cullman, AL

-Email me on Indeed: <http://www.indeed.com/r/William-Blalock/e9eafef26b6e8bdd>

Security Clearance: TS/SCI w/poly 2019

30 years experience in the area of military and commercial RF-related voice/data communications systems and radar systems.

For the past twenty-five years I've been involved in the exploitation and testing of foreign missile systems in the Missile and Space Intelligence Center's (MSIC) RF Lab. I have been the lead automated test equipment programmer (ATE) for 22 years. I have over twenty years experience in test system development and integration, hardware interfacing techniques, signal conditioning and test apparatus development. I support MSIC in field and laboratory tests, measurements, and analysis of RF- and microwave-related foreign air defense weapons. This also includes data collection, reduction and analysis using laboratory instruments and automated data acquisition systems.

Willing to relocate: Anywhere

Authorized to work in the US for any employer

## Work Experience

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### **RF Engineer: Technical Analyst: Electronics Engineer**

SAIC - Huntsville, AL

1993 to Present

SAIC (1993 - Present)

- Systems Engineer Performs test and measurement instrumentation for MSIC FME projects. Defines test requirements; selects and integrates instrument groups for test; instrument and equipment configuration and operation; performs development of data acquisition routines; experience in maintenance and troubleshooting of RF and data communications systems hardware
- Supports development of RF and microwave test instrumentation and systems integration; experience includes testing and analysis of RF and microwave systems, subsystems, and components. Proficient in local and remote control of spectrum analyzers, oscilloscopes, pulse generators, RF generators, power meters, arbitrary waveform generators and many other complex test instrumentation.
- Configures radar or RF seeker system-under-test (SUT) operating modes, operates SUT in support of measurements, performs SUT alignment, instrument calibration, maintenance, and hardware troubleshooting, data reduction, and data analysis.
- Designed and maintains RF Lab configuration database in Microsoft Access.
- Supports MISC EO/IR Lab in operation, analysis and testing of EO/IR seekers and subsystems; experience in design, development, testing of EO/IR seeker data collection instrumentation; experience in data collection, reduction, and analysis.

- Assisted in the design of the automated test equipment (ATE) instrumentation suite; instrument and equipment specification, selection, and integration; and test facility design, specification of facility modifications, and supervision of related integration;
- Performs test interface, signal conditioning, and test apparatus hardware development.
- Executes performance verification and calibration of telemetry instrumentation for RF missile seeker flight tests and captive carry tests; programs all ATE tests; RF tests and measurements in support of FME; test interface and signal conditioning hardware development; seeker operation, configuration for tests, troubleshooting and repair.
- Develops documentation related to test and measurement activities.
- Configures Radar or RF seeker System-Under-Test (SUT) operating modes; operates SUT in support of measurements; SUT alignment, maintenance, hardware troubleshooting, and repair; and data acquisition, reduction and analysis.
- Maintains instrument and test equipment; performs hardware troubleshooting, calibration, and repair; facility, facility support systems, and instrument support systems maintenance, troubleshooting, and repair; facility, equipment, and personnel resource management; and RF Laboratory related development, operations, and maintenance requirements analysis, forecasting, and procurement planning.
- Facility Security Officer Performed all duties relating to Green Mountain Research Facility Clearances. This includes JPAS management and all required training for employees.
- Printed Circuit Board (PCB) design and manufacture (in house). Responsible for implementing and operating RF Lab PCB capability enabling fast prototyping of circuit designs.
- Twenty-five years experience in cable/connector manufacture. This includes fiber optic and any DC-RF connector, military/commercial.
- Twenty-five years experience in printed circuit board repair. Component, Land, eyelet, epoxy and fiberglass repair included.
- Design and fabrication of RF ancillary custom test equipment including digital and analog control circuits, schematic capture to board design and layout, case design and assembly, from design to final product.

## **Electronics Technician Second Class USS Pensacola LSD**

U.S. Navy

1987 to 1993

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- Primarily responsible for all HF, VHF, UHF and satellite communications systems, maintenance and repair
- Work center supervisor for 2 years overseeing all equipment repair, preventative maintenance scheduling, training

- Desert Shield/Storm Veteran, Honorably discharged in 1993

## Education

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### **High school diploma**

Calhoun College

### **Some College in Calculus I-IV, Differential Equations, Linear Algebra, Chemistry I,II**

Calhoun Community College - Decatur, AL

## Skills

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- Dc power (10+ years)
- Pcb design (10+ years)
- Schematic (10+ years)
- Schematic capture (10+ years)
- Soldering (10+ years)
- Spice (4 years)
- Fabrication (10+ years)
- Generators (10+ years)
- Instrumentation (10+ years)
- Rf (10+ years)
- Power supplies (10+ years)
- Rf hardware (10+ years)
- Oscilloscopes (10+ years)
- Pcb soldering (10+ years)
- Spectrum analyzers (10+ years)
- Data collection (10+ years)
- Integration (10+ years)
- Collection (10+ years)
- Pcb (10+ years)
- Systems engineering
- Test automation
- Requirements analysis

## Military Service

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### **Branch: United States Navy**

Rank: ET2

## Additional Information

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### SKILLS:

Software applications include: Windows (10/2000/XP/NT/98/95/ DOS, Visual BASIC, AutoSketch, AutoCad, and AutoCad LT, Excel, Electronics WorkBench, P-Spice, Keysight VEE, SICL, VISA/VTL, BASIC, DasyLab, Microsoft Word, PowerPoint, Orcad Capture, PCB Editor, Schema III, Audacity, Express PCB and Schematic, eMachineshop software, LP Wizard, Front Panel Designer Software, Footprint Expert and various other office and graphics software. Extremely proficient in automated instrumentation data collection using SCPI code. Instrument driver writing with HPIDL for interactive remote control of various instruments.

Hardware applications include: Proficient in baseband through RF hardware selection and integration. Design and fabrication of various test interface instruments from discrete component control to embedded computer runtime software control.

Schematic capture to PCB design and layout, software listed above.  
PCB soldering and repair.

Familiar with many, many types of test equipment, from DC power supplies to Spectrum Analyzers, pulse generators, oscilloscopes and many others.

Mechanical part design, proficient in AutoCad 3D drawing.  
Proficient in troubleshooting and maintaining systems, subsystems and associated peripherals.