



Nicholas A. Smith

EXPERIENCE

Northrop Grumman - Mission Systems | Baltimore, MD

Principal RF Microwave Design Software Engineer

April 2022 – Current

PROGRAMMING

- Led the integration of Agile project management, GitHub, and Jira into the team's workflow, resulting in a 35% increase in development efficiency and better project tracking.
- Developed and maintained a flexible Test Suite application written in C#, incorporating 50+ class libraries with communications over various protocols (GPIB, serial and TCP/IP), enabling control and testing of the device under test (DUT). Utilizing API such as programmable instruments (SCPI) with various test hardware (e.g. PXI, PNA-X, Oscilloscope, RF Generator, RF switch, etc.), and RESTful APIs.
- Spearheaded the creation of an application suite utilizing C#, and Iron Python for Ansys HFSS job queueing and integration with Siemens TeamCenter, streamlining RF Engineers' workflows by optimizing custom RF-integrated circuit designs and adherence to the assembly requirements. This suite is implemented for all Northrop Grumman Mission Systems.
- Develop/manage internal databases schema to support various hardware design systems and program resources, improving data accessibility and accuracy across the organization by implementing database normalization.
- Mentored junior engineers in programming best practices, unit testing, and agile project management with Jira and GitHub, resulting in a more cohesive and efficient development team.

Principal Manufacturing Process Engineer

September 2021 – April 2022

Manufacturing Process Engineer

November 2019 – August 2021

PROGRAMMING

- Designed and developed software for product traceability using C# and MS SQL.
- Created MATLAB scripts to monitor process equipment and improve efficiency.
- Automated CMM programs for precision measurement and inspection with SmartScope Zone 3.
- Streamlined robotic automation for Fanuc and Adept robots, resulting in increased productivity.
- Mentored junior engineers in programming best practices, unit testing, and agile project management with Jira and GitHub.

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SUMMARY

Strategic Software Engineer skilled in application development, testing and optimization. Excels at coordinating ground-up planning, programming, and implementation for core modules. Maintains strong object-oriented and software architecture fundamentals.

JOB SKILLS

- Software Development & Validation
 - Unit Testing
- Agile Project Management
- Product Lifecycle Management (PLM)
- Programmable Logic Controller (PLC)
- Six Sigma / Lean

COMPUTER LANGUAGES

- **Proficient with:** C#, HTML, Ladder Logic, MATLAB, PHP & Python.
- **Familiar with:** C++, Java, Lua, & Microsoft Visual Basic.

SOFTWARE

- **Database:** JSON, MySQL & MS SQL.
- **Programs:** Eclipse IDE, Git, Jira, LabVIEW, Postman, Siemens NX, Tableau, & Visual Studio.
- **Platforms:** Windows, & xUbuntu (Linux).

FACTORY SUPPORT

- Analyzed process yields and costs, recommending and implementing quality improvements to achieve target metrics.
- Resolved complex manufacturing issues related to materials, design, equipment, and training.
- Provided technical support to factory maintenance personnel in troubleshooting and repairing process equipment.
- Administered the networking and cybersecurity of computer systems and process equipment to ensure secure operations.

PROCESS DEVELOPMENT

- Developed and optimized manufacturing processes to enhance production capabilities and reduce costs.
- Conducted cost-benefit analysis and provided ROI justification for process improvements.
- Created custom tooling designs and specified new equipment for production readiness.
- Documented and revised process procedures and work instructions to ensure consistent product quality.

OTC Daihen | Tipp City, OH

Mechanical Support Engineer

January 2018 – November 2019

PROGRAMMING

- Developed robot welding programs for customer parts.
- Provided a use case for a dynamic questionnaire tool for the sales department. Developed the quote form tool in PHP as an extension for OpenCart to streamline sales processes. This eliminated the use of manual entry word documents to create quotes. Reduced quote time by 80%.

DESIGN/MANUFACTURING

- Conceptualized, designed, and created detailed drawings and simulation layouts for manufacturing projects.
- Developed cost estimates, delivery capabilities, and coordinated with vendors and customers to ensure project approval and timely delivery.
- Designed custom safety cells for robots to comply with ANSI/RIA R15.06-2012 safety standards and protect workers.
- Developed technical and operational documentation for robotic cells.
- Developed and maintained documentation for non-conforming parts, and supplier policies to ensure that short- and long-term countermeasures are created and acknowledged by vendors.
- Established standards for a comprehensive 3D parts library, and collaborated with the assembly team to identify and implement process improvements for existing products.

EDUCATION AND TRAINING

Expected in June 2025

Master of Science | Information & Communication Technology, Software Design and Programming

University of Denver, Denver, Colorado

December 2016

Bachelor Of Science | Mechanical Engineering, Manufacturing

Wright State University, Fairborn, Ohio

LICENSES & CERTIFICATIONS

Northrop Grumman

November 2020 – Present

Six Sigma Green Belt

USA DoD

November 2020 – Present

Secret Level Security Clearance