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Joshua Wilkins

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Safran Federal Systems — Sr. Engineer I   **05/08/23 - 10/01/24**

- Upgraded a multi-million dollar Wavefront system, improving some performance metrics by a factor of 10
  - Implemented an effective phase calibration approach by creating and training a machine learning model
- Fully characterized and determined appropriate performance metrics and terminology
  - Established specification sheets that allowed for direct comparison to competitor products
- Created a fully automated test suite to validate the RF performance of the Broadsim product line
  - Generated useful reports that provided a more representative display of actual product performance
- Devised a way of measuring inter-signal metrics that saved the company millions in test equipment
  - Submitted the research in an IEEE paper; *Bounding Inter-Signal Amplitude and Phase Metrics*

Raytheon (Intelligence & Space Division) — Sr. Engineer I   **03/21/20 - 03/24/23**

- Managed the complete redesign of legacy CCA modules from project bid to release
  - Part of complex multi-board systems requiring interdisciplinary teamwork and design efforts

Microchip (Frequency and Timing Division) — Engineer II   **05/31/18 - 03/08/20**

- Developed a self-contained and distributable python test platform to automate data analysis procedures
  - Provided a dashboard for real-time data collection and unit interfacing
  - Capable of calculating advanced statistical properties in parallel on several units at a time
  - Well documented with sphinx for ease of use and future feature implementation
  - Worked across product lines saving hundreds of hours of manual testing, tuning, and report generation
- Engineered a cascaded PLL with an automatic gain controller in the design of a 12 GHz synthesizer

Microsemi (Frequency and Timing Division) — Engineer I   **02/27/17 - 05/31/18**

- Delivered informative presentations on various topics such as Jupyter, pandas, and python data structures
- Created a script to synchronize the Agile PLM system with our Microsoft Access component database
  - Replaced a PLM tool, saving the company hundreds of thousands of dollars

Carestream Health—Integration Testing Automation Lead   **05/23/16 - 02/10/17**

- Managed automated test suites in python to verify software functionality across products
- Greatly enhanced communication between the software developers, QA, and the automation team
- Utilized Agile practices daily including Scrum and Test Driven Development

Skills

Software: SQL; Python; R; SAS; Git; Mercurial; C; C++
Technical: Tableu; Google Sheets; Microsoft Excel; Microsoft Access
Documentation: Sphinx; Doxygen; Unit test; pytest; DocTest; LaTeX, Markdown; rst
Other: Jupyter Notebook; Visio; Linux; CA Agile Central; Jira

Education

Dakota State University - Madison, SD
- Working towards a Master of Science degree in Analytics

Rochester Institute of Technology (3.76 GPA) - Rochester, NY   2015-2016
- Bachelor of Science degree in electrical engineering, minor in mathematics
- Outstanding Undergraduate Scholar nominee

Monroe Community College (3.93 GPA) - Rochester, NY   2013-2015
- Associate degree in engineering science, mathematics certificate