

Neil Guertin

Software Quality Engineer

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- EDUCATION** **Rochester Institute of Technology** Rochester, NY
Bachelor of Science *Computer Science & Computational Mathematics* Sep. 2012 - May 2017
· GPA 3.8, College of Science Deans List x7
- EXPERIENCE** **MathWorks** Natick, MA
Quality Engineer *MATLAB Language Front End* Jun. 2018 - Jun. 2022
· Wrote tests and testing tools for MATLAB language and syntax, including individual tests for bug fixes and complete suites with documentation for new features
· Maintained existing legacy test bed, and updated tests to meet modern standards through individual and company-wide projects
· Found and investigated bugs in MATLAB language and syntax
· Provided feedback on testability and usability of new features
Application Support Engineer *Engineering Development Group* Jun. 2017 - Jun. 2018
· Provided technical support to users of MATLAB
· Documented and shared solutions to assist with future cases
· Improved automated crash reporting and response system
· Instructed other ASEs on how to read crash logs and report new issues
Quality Engineer Intern *MATLAB Graphics & Charting* Jun. 2016 - Dec. 2016
· Wrote testing tools for MATLAB charts including mixins and a comparator
· Updated and improved a large collection of legacy tests
- Rochester Institute of Technology** Rochester, NY
Lab Programming Researcher *Center for Detectors* Jun. 2015 - Dec. 2015
· Assisted faculty and engineers on NASA and NSF funded research
· Wrote IDL code to gather, reduce, analyze, plot, and simulate data
Student Lab Instructor (TA) *Computer Science Department* Sep. 2013 - May 2017
· Graded homeworks and labs using custom scripts
· Tutored students in class, in the mentoring center, and privately
- SKILLS** MATLAB Python Linux/Bash HTML/CSS Compilers
C/C++ Java Git L^AT_EX Test Design
- PROJECTS** **AST Test Data** *MathWorks* Winter 2021
· Wrote data set of MATLAB files representing all Abstract Syntax Tree nodes and cases
· Added tests for downstream clients of the AST, finding dozens of issues
· Saved development time for new language features while increasing confidence in quality
P-Code R2022a Format *MathWorks* 2020 - 2022
· Led testing activities for multi-year project to create new obfuscation algorithm for content-obscured executable code files
· Wrote test plans, implemented tests, found and reported bugs
· Qualified and delivered betas to select customers
· Coordinated with other QEs on impacted downstream teams across the company
Parfor Test Rewrite and Expansion *MathWorks* Fall 2018
· Updated and rewrote a large legacy test suite which had fallen into disrepair
· Parameterized tests, extracted common functionality, and filled testing holes
· Improved maintainability of the test suite by applying consistent standards and using modern tools
· Improved quality of the product by finding bugs and increasing code coverage
GraphicsComparator *MathWorks* Fall 2016
· Built a powerful and flexible comparator for graphics objects in MATLABUnit framework
· Wrote tests and found bugs in save/load, copy/paste, and other related workflows