

Neil Guertin

Software Quality Engineer
neilguertin@neilguertin.com

EDUCATION	Rochester Institute of Technology Bachelor of Science <i>Computer Science & Computational Mathematics</i> Sep. 2012 - May 2017 · GPA 3.8, College of Science Deans List x7	Rochester, NY
EXPERIENCE	MathWorks Quality Engineer <i>MATLAB Language Front End</i> · 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, taking part in individual and company-wide projects for updating tests to meet modern standards · Searched for and investigated bugs found in MATLAB language and syntax · Provided feedback on testability and usability of new features Application Support Engineer <i>Engineering Development Group</i> · Provided technical support to users of MATLAB · Documented and shared knowledge 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 Software Engineer in Test Intern <i>MATLAB Charting QE</i> · Wrote testing tools for MATLAB Graphics including mixins and a comparator · Updated and improved a large collection of legacy tests	Natick, MA Jun. 2018 - Jun. 2022 Jun. 2017 - Jun. 2018 Jun. 2016 - Dec. 2016
	Rochester Institute of Technology Lab Programming Researcher <i>Center for Detectors</i> · 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) <i>Computer Science Department</i> · Graded homeworks and labs using custom scripts · Tutored students in class, in the mentoring center, and privately	Rochester, NY Jun. 2015 - Dec. 2015 Sep. 2013 - May 2017
SKILLS	MATLAB Python Linux/Bash HTML/CSS Compilers C/C++ Java Git L ^A T _E X Test Design	
PROJECTS	AST Test Data <i>MathWorks</i> · Created data set of MATLAB files representing all AST nodes and special cases · Wrote testing tools to use data set in tests · Found bugs in new and legacy features that interact with the AST P-Code R2022a Format <i>MathWorks</i> · Led QE support for multi-year project to create new obfuscation algorithm for content-obscured executable code files · Wrote test plans, implemented tests, reported issues · Qualified and delivered betas to important customers · Coordinated with QEs on impacted downstream teams across the company Parfor Test Rewrite and Expansion <i>MathWorks</i> · 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 reducing total lines, applying consistent standards, and using modern tools · Improved quality of the product by finding bugs and increasing coverage GraphicsComparator <i>MathWorks</i> · 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	Winter 2021 2020-2022 Fall 2018 Fall 2016