# SAMUEL ROSENTHAL

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**OBJECTIVE:** A summer position where I can apply my technical skills to solve real world problems.

## EDUCATION

**Cornell University,** College of Engineering, Ithaca, NY — Expected May, 2021
Bachelors of Science, Major: Computer Science, Minor: Operations Research — GPA: 3.2

***Relevant Coursework:*** **Spring 2019:** Data-Driven Web Applications, Embedded Systems, Optimization II, Language and Information, Foundations of Artificial Intelligence
**College:** Intro to Analysis of Algorithms, Optimization, Database Systems, Networks, Data Structures and Functional Programming (OCaml), Engineering Probability and Statistics, Practical Tools for Operations Research, Machine Learning and Data Science, Unix Tools and Scripting, Object-Oriented Programming and Data Structures (Java), Discrete Structures, Digital Logic and Computer Organization, Intro to Computing (Python), Practical Computing for Engineering Applications of MATLAB

## EXPERIENCE • PROJECTS • INTERNSHIPS

**Software Development Engineer in Test (SDET) Intern,** *Homesite Insurance,* Boston, MA — Summer 2019
Built testing framework for Homesite's home insurance quoting REST API (HSAPI) using ReadyAPI/SoapUI. Tested end-to-end flows by sending all HTTP requests (Post, Put, and Get) required to retrieve and purchase a quote. Wrote Groovy classes to parse JSON HTTP responses. Used Groovy and Microsoft SQL Server to create a dynamic and data-driven test framework. Followed a psuedo-agile software development approach. Used Jira, BitBucket, and Confluence as project development tools. Used Jenkins pipeline for continuous integration. Gained domain expertise in home insurance underwriting and Homesite's business model. Passed SoapUI Pro Certification.

**java-cssSelector-to-xpath (Independent Personal Project)** — June 2018 – Present
Developed Open Source Software written in Java to convert CSS Selector strings to XPath strings. Validated and parsed CSS Selector strings using Java Regex classes. Utilized recursion to efficiently parse input strings. Implemented 17 JUnit tests and over 270 individual test cases. Used GitHub as the code repository, Apache Maven as the build automation tool, and Travis CI as the continuous integration service. Gained extensive experience with CSS and CSS Selectors.

**CSS Selector to XPath Converter Website (Independent Personal Project)** — July 2018 – Present
Created an online tool to transform CSS Selector strings to XPath using my java-cssSelector-to-xpath OSS. Used Apache Wicket as the web application framework. Hosted website on Google Cloud Platform's App Engine. Used App Google Analytics to monitor website. Used Selenium to test website and verify the correctness of my OSS converter. Programmed all Selenium tests using only CSS Selectors and then reran the same tests using XPaths generated by converting the CSS Selector strings using my OSS. Used JUnit test framework to run all Selenium tests against Chrome, FireFox, and Edge browsers.

**Personal Website** — July 2018 – Present
Developed website without templates or publishing tools while using Eclipse as my editor. Used Bootstrap as the front-end component library, Javascript and jQuery to provide additional dynamic behavior, and Font-Awesome for some icons. Used CSS to style and format page content.

**Programming Counselor,** *TIC Technology Camp,* Potomac, MD — Summers 2017 & 2018
Taught Java and Terrapin Logo programming to campers ages 7 to 14. Java graphical programs were written in Swing and utilized Processing's graphic framework. Graphical programs often used AWT Graphics, AWT Shapes, BufferedIO, ImageIO, events, and event listeners. Text-based programs used Scanner and JOptionPanes.

**Science Internship,** *National Institute of Standards & Technology,* Gaithersburg, MD — Sept. 2016 – May 2017
Material Measurement Laboratory

## SKILLS *(Visit my website for detailed descriptions and knowledge matrix)*

**Programming Languages:** Java, Python, OCaml, Groovy, SQL, MATLAB, R, HTML 5, CSS 3, Javascript, Logo
**Development Tools:** SoapUI, Git, Tortoise Git, Travis CI, JUnit, Selenium, Apache Maven, Jenkins
**Web Development:** Apache Wicket, Google Cloud Platform, Google Analytics, jQuery, Bootstrap, Font Awesome
**IDEs:** Eclipse, Visual Studio Code, ReadyAPI, MS SQL Server Management, Processing
**Other:** Regular Expressions, BitBucket, GitHub, Jira, Confluence, REST, JSON, MS SQL Server, Linux, MS Office

## CERTIFICATIONS • PUBLICATIONS • AWARDS

SoapUI Pro Certified (2019)

Forster, A.L., Bitter, J.L, **Rosenthal, S.**, Brooks S., and Watson, S.S. "Photofading in cotton fibers dyed using red, yellow, and blue direct dyes during examination with Microspectrophotometry (MSP)." *Forensic chemistry 5 (2017): 72–78. PMC.*