

YAWAR RAZA

YawarRaza7349@gmail.com | (304) 839-8695 | [linkedin.com/in/YawarRaza7349](https://www.linkedin.com/in/YawarRaza7349) | YawarRaza7349.github.io | Authorization: U.S. Citizen

SKILLS

- Tools: C#, Java, JavaScript, C++, Standard ML, Scala, Python, Haskell, SQL, Git, SVN, Three.js, LaTeX, Regex, Linux, Unix shell, PowerShell
 - Tasks: [adding features](#) to and [debugging existing code](#) in large codebases, [creating software tools](#), [designing custom computer languages](#)
-

EDUCATION

Rochester Institute of Technology | Master of Science in Computer Science | GPA: 3.9 | August 2015 – May 2018

- Course Highlights: Aspect-Oriented Programming, Biologically-Inspired Artificial Intelligence (neural networks)

Rochester Institute of Technology | Bachelor of Science in Computer Science | GPA: 3.8 | August 2011 – May 2018

- Programs: Major in Computer Science, Double Major in Game Design and Development, Minor in Mathematics
 - Course Highlights: Object-Oriented Design Patterns, Formal Methods Tools (Alloy and SPIN/PROMELA), Educational Games
 - Achievements: RIT Honors Program, 2016 Winner of the Computer Science Department's "Outstanding Fifth Year Student Award"
-

WORK EXPERIENCE

SRC Solutions Inc., Center Valley, PA | Software Engineering Co-Op (remote) | January 2017 – June 2017

- [Built a tool from scratch](#) with Windows Presentation Foundation to backup, restore, and migrate data from and to their MySQL databases
- [Designed an XML-based format](#) to specify filtering criteria, data relationships, and transformation rules used by the above tool

McGraw-Hill Financial - S&P Capital IQ, New York, NY | Software Engineering Intern (onsite) | June 2014 – August 2014

- Used the company's in-house Haskell-like language, called Ermine, to create widgets visualizing data from a SQL Server database
- [Tracked down and fixed bugs](#) in Ermine's compiler, written in Scala, after finding and diagnosing them through my use of Ermine

B-Line Medical, Washington, DC | Software Development Intern (onsite) | September 2013 – January 2014

- [Contributed to code](#) importing and exporting the Excel XLSX and iCalendar file formats by studying the details of those formats
 - Learned SQL on my own, with no prior background, in order to work on backup and restore utilities for their PostgreSQL database
-

PROJECTS

Proofs About Particular Programs (Work in Progress) | created solo | December 2023 – March 2024

- [Implemented a small programming language](#) in Coq as both an interpreter and a relation-based semantics intended for use in proofs
- Took inspiration from machine stack frames to adapt a zipper representation of continuations into a form easier to reason about

PokeNet | created on a team of 3 | March 2015 – May 2015

- Designed a normalized database schema with 13 tables and 6 views for a social network of players coordinating in-game trades
- Wrote Bash scripts to generate and execute temporary SQL scripts to populate part of the database with data from text files

Frame-by-Frame Animation Application | created solo | January 2014 – April 2015

- [Created a tool](#) to use instead of Photoshop for my 2D Animation course, with a fill tool, a color palette widget, and onion skinning
- Kept the feature set focused, such as having colors typed in as RGB, to reduce development time while also improving user productivity

Popular Languages of GitHub vs. Stack Overflow | created solo | March 2014 – April 2014

- Tested using HTML5 Web Workers to get data from each website's REST API via AJAX, which are then displayed as an interactive graph
 - Handled GitHub's rate limit by displaying pending data points, indicated using CSS styling on the SVG DOM elements created by D3.js
-

ACTIVITIES

- Won 1st place in the 2018 RIT Math Competition, and was top scorer at RIT and in the top 20% nationwide in the 2016 Putnam Competition
- Placed in the top 5% in HackerRank's Hack the Interview III coding contest in April 2020, speedily solving all 4 of its challenges
- Gave talks for the RIT Computer Science Community (CSC) that introduced attendees to functional programming and modern type systems
- Presented solutions for CSC practice exam events and wrote questions for one such mock exam about the C programming language
- Made pull requests fixing the Scala language specification and submitted a popular issue report for the open-source Atom text editor