

Rajvir Samrai

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Skills

Languages C, Python, Java, HTML5, CSS, SASS

Tools Git, PThreads, OpenMP, MPI, Beautiful Soup, Requests, JavaFX, Jekyll

Projects

rajvirsamrai.ca

PORTFOLIO/BLOG WEBSITE CREATED USING JEKYL, HTML5, CSS, SASS, GIT

Aug. 2020

- Designed a reusable nav bar, header, and footer.
- Created a reusable "layout" for all pages so they don't each repeat the same head tag.
- Developed a reusable template for automatically generated blog posts and lists.
- Jekyll made it easy to follow the DRY(Don't repeat yourself) and KISS(Keep it simple, stupid) principles.

Laplacian Image Filter

ASSIGNMENT FOR PARALLEL PROGRAMMING COURSE. C, PTHREADS, GIT

Oct. 2019

- Developed a C program to apply a Laplacian filter to an image while practising parallel programming.
- Implemented concurrent execution using PThreads to better utilize CPU resources.
- Implemented multiple parallel programming models (Row/Column Major, Work pool) to test the different effects on caching.
- Made an effort to improve spacial and temporal locality.

Paint Clone

GROUP ASSIGNMENT FOR SOFTWARE DESIGN COURSE. JAVA, JAVA FX, GIT

Oct. 2018

- Developed a MS Paint clone using Java and JavaFX to practise good software design and OOP.
- Implemented multiple design patterns such as Builder, Strategy, and Command to simplify the source code.
- Claimed and completed 11 out of 30 total user stories.
- Lead weekly scrum meetings to keep the team on track and organized.
- Regularly helped teammates resolved merge conflicts to keep the project moving
- Conducted code reviews to maintain the quality of the source code.

O'Clock

GROUP MEMBER

Oct. 2016 - Jan. 2017

- Used social engineering to research a security flaw in my school board's online student account creation.
- Created a Python script to scan a range of accounts and determine if they're vulnerable.
- Discovered 3000+ vulnerable accounts.
- Submitted a report outlining the flaw and potential solutions.
- Completed another investigation for a different vulnerability in the local library account system.

Work Experience

Search Gurus Inc.

Mississauga, Canada

JUNIOR PROGRAMMER

Sep. 2015 - Jan. 2016

- Sanitized HTML5 files by hand and saved the company weeks of work.
- Recorded macros in Notepad++ to automate part of the sanitation process
- Worked with a fellow co-op student under 2 senior developers.

Education

University of Toronto Mississauga

CANDIDATE FOR H.B.SC. IN COMPUTER SCIENCE WITH A MINOR IN MATH

Sep. 2017 - Nov. 2022

- Relevant Coursework; Software Design, Software Tools and Systems Programming, Operating Systems, Parallel Programming,