

Salim Mansour

SOFTWARE ENGINEERING · GAME PROGRAMMING

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Work Experience

Centre for Addiction and Mental Health

NEUROIMAGING RESEARCH ANALYST (PYTHON, MATLAB, R)

May 2019 - August 2019

- Implemented imaging preprocessing pipelines for a diverse group of neuroscience researchers, efficiently preparing data for 6 unique studies totalling **over 500 subjects**.
- Redesigned large projects in the neuroscience community including **dmripred** and **Nipype**, and created tractography pipeline tractify to decrease nerve tract image generation time for patients from an **hour to 15 minutes**.

Geosoft Inc.

AUTOMATED TEST ENGINEER (C#, RANOREX, RUBY)

January 2018 - August 2018

- Tested main product Oasis montaj through Ranorex by managing over 1000 tests for each release and reporting results, decreasing the **average failure rate for each build by 30%**.
- Presented results in weekly meetings, communicating with coworkers in other departments to boost understanding of **automated testing**.

Education

University of Toronto

HBSC SPECIALIST IN SOFTWARE ENGINEERING, GPA 3.7/4.0

September 2016 - April 2020

- Studied Algorithm Design and Analysis, Operating Systems, Artificial Intelligence, Computer Graphics, and Machine Learning.
- Awards: Dean's List 2016-2020, UofT Entrance Scholarship.

Projects

Balloonatics

GAME DEVELOPMENT (GAMEMAKER: STUDIO, UNITY, C++)

September 2019 - present

- Developing an action platformer, using **physics, animation, and mathematics** to solve programming challenges including seamless level looping, while also iteratively improving game feel and always keeping the user experience in mind.

Ray Tracer

COMPUTER GRAPHICS, UNIVERSITY OF TORONTO (C)

September 2019 - December 2019

- Used **C** to quickly produce photorealistic scenes, combining linear algebra, physics, and programming concepts to implement advanced features including **multithreading**, texture mapping, anti-aliasing, depth of field, and refraction.

Tractify

NEUROIMAGING, CENTRE FOR ADDICTION AND MENTAL HEALTH (PYTHON)

May 2019 - August 2019

- Designed and built an efficient tractography generation pipeline using software design principles to greatly decrease runtime and provide increased functionality for complex problems, and containerized it using **Docker** for increased accessibility and reproducibility.

Extracurricular Activity

Game Development Club

EXECUTIVE

January 2019 - present

- Coordinating with a team to gather resources and projects to showcase in **biweekly meetings** concerning game development at the University of Toronto.
- **Created and presented lectures** to explain the logic behind popular game mechanics to guide beginners, engage in deep game design discussions, and discuss career paths in the game industry.

Skills

Programming C++, C, Python, C#, Java, R, HTML, SQL

Testing Ranorex, JUnit, Selenium

Game Development Unity, GameMaker:Studio