Salim Mansour

slimnsour.com · slimnsour@gmail.com · Toronto, ON

WORK EXPERIENCE

Centre for Addiction and Mental Health

Research Methods Specialist — *March 2023 – present*

Research Analyst — *May 2020 – February 2023*

- Optimized MRI pipelines for a mental health research lab managing large studies to reduce runtime for preprocessing workflows by 30%.
- Led data management and pipeline development on a transcranial magnetic stimulation (TMS) study, creating a preprocessing pipeline with Nilearn and Pandas to generate personalized targets for 50+ participants.
- Built a tractography generation pipeline using software design principles to analyze structural connectivity connections on over 20,000 neuroimaging scans.
    - Publication: Wainberg, M., Forde, N.J., **Mansour, S.** et al. Genetic architecture of the structural connectome. Nat Commun 15, 1962 (2024). doi:10.1038/s41467-024-46023-2.

Geosoft Inc.

Automated Test Engineer (Co-op) — *January 2018 – August 2018*

- Managed over 1,000 tests per release for the Oasis montaj software using Ranorex, reducing the average failure rate by 20%.
- Organized weekly meetings to present testing results, communicating with developer and QA departments to improve test coverage of niche bugs for an improved client experience.

EDUCATION

University of Toronto

Honors Bachelor of Science in Computer Science — *September 2016 – April 2020*

- Cumulative GPA: 3.7/4.0
- Awards: Dean's List, UofT Entrance Scholarship.
- Coursework: Algorithm Design and Analysis, Operating Systems, Artificial Intelligence, and Machine Learning.
- Executive of the Game Development Club, coordinating biweekly meetings on game design.

SKILLS

- **Programming Languages:** Python, C, C++, C#, Java, R, Matlab, SQL, HTML, CSS
- **Big Data & Machine Learning:** Numpy, Pandas, Scikit-learn, TensorFlow, PyTorch, Matplotlib
- **Deployment:** Docker, Singularity, CircleCI, Github, Jira

PROJECTS

Cat and Mouse Game

Artificial Intelligence and Machine Learning (University of Toronto) — *January 2020 – April 2020*

- Developed a maze game using machine learning techniques in C, applying A*, minimax, and feature-based q-learning to train the top competitive model in the class.

Ray Tracer

Computer Graphics (University of Toronto) — *September 2019 – December 2019*

- Created photorealistic scenes in C, combining linear algebra, physics, and algorithm design concepts to implement optimization features including multithreading, texture mapping, and refraction.