

Siddharth Reed

✉ slreed@andrew.cmu.edu | 📷 [DJSiddharthVader](#) | 🌐 [Sid-Reed](#)

Education

Master of Science - Computational Biology

CARNEGIE MELLON UNIVERSITY

- Relevant Coursework: Algorithms, Statistics, Programming, Machine Learning, Genomics

Sep. 2020 - Apr. 2022

Pittsburgh, PA, USA

Honours Bachelor of Science - Molecular Biology & Genetics Co-op

McMASTER UNIVERSITY

- Relevant Coursework: Software Development, Mathematical Modelling, Bioinformatics, Microbial & Human Genetics

Sep. 2015 - Apr. 2020

Hamilton, ON, Canada

Experience

Hoffman Lab, University Of Toronto

RESEARCH ASSISTANT CO-OP ([LAB SITE](#))

- Comparing transcriptomic data between publicly available placental, cancer and “normal” tissues
- Extensively cleaning and pre-processing data in a clear, explainable, reproducible manner
- Self-taught and applied linear models to differential expression analysis and correcting for batch effects
- Creating clear intuitive visuals to help communicate and understand patterns in biological data

May 2019 - Aug. 2019

Golding Lab, McMaster University

UNDERGRADUATE THESIS STUDENT ([GITHUB](#))

- Investigated the relationship between horizontal gene transfer rates and CRISPR-Cas systems using novel techniques
- Built and end-to-end pipeline to download, process, analyze and visualize public genomic data
- Applied methods in network theory and statistics to reach conclusions about biological phenomena
- Presented my work in a clear, engaging way as both a final presentation and manuscript

Sep. 2018 - Apr. 2019

Adapsyn, McMaster University

DATA SCIENCE CO-OP ([GITHUB](#))

- Performed various analyses with many kinds of biological data to accelerate natural products discovery
- Applied statistics and statistical learning techniques to help direct chemists in natural products discovery
- Communicated effectively with wet lab scientists to address problems from a computational perspective
- Became adept at working under constant deadlines and effectively multitasking

Jan. 2018 - Aug. 2018

Extracurriculars

Configuration Files and Scripts

PERSONAL PROJECT ([GITHUB](#))

- Wrote concise, robust, readable bash scripts for personal utilities
- Tested individual scripts and their interactions to ensure proper functionality
- Built scripts to be stylistically and behaviourally consistent

Mar. 2018 - Present

Dry Lab, McMaster iGEM Team

MEMBER ([GITHUB](#))

- Implementing a genetic algorithm and neural network to simulate SELEX sequence optimization *in silico*
- Collaborated with a team to build the project, manage documentation and version control using git
- Updating and explaining the computational aspects of the project to other members and the public

Mar. 2017 - Nov. 2017

Frontier College

VOLUNTEER TUTOR

- Tutoring for high school students, mostly involving math and biology
- Going over concepts thoroughly, helping student understand difficult concepts

Sep. 2015 - Apr. 2017

Skills

Programming

Proficient: Python, Bash, Vim, Git, LaTeX, R, Go

Familiar: Bioconductor, ggplot2, Pandas, Numpy, sk-learn, Cluster Computing (slurm, sungrid)

Research Languages

Data Analysis, Data Visualization, Scientific Writing, Relating Technical Concepts

English, French