

Johanan Idicula

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jdicula.github.io

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CAREER SUMMARY

Python developer and Linux system administrator

EDUCATION

MCGILL UNIVERSITY

B.Sc. Anatomy and Cell Biology
2019 | Montreal, QC

LINKS

Github:// [jdicula](https://jdicula.github.io)

Website:// jdicula.github.io

SKILLS

LANGUAGES

3+ years:

Python • MATLAB • Java • Bash

2+ years:

L^AT_EX

TECHNOLOGY

Git/GitHub • AWS • Debian GNU/Linux
Unix • Windows • Automation
TravisCI • HTML/CSS • RESTful APIs

CONCEPTS

2+ years:

Image Analysis • Computer Vision
Data Visualization • Asynchrony

1+ years:

Multiprocessing • Data ETL

0+ years:

Machine Learning • Data Exploration

EXTRACURRICULARS

DISCORD MODERATOR

McGill Discord chat

2016–present

- Built a social community for 200+ McGill students.
- Drafted rules of conduct to the chat safe and enjoyable for all.

VICE PRESIDENT IT

McGill Anatomy and Cell Biology Students' Society

2016–2017

- Redesigned website
- Managed productivity software
- Planned events and logistics

WORK EXPERIENCE

MCGILL UNIVERSITY | Undergraduate Research Assistant
Oct 2015 – Present | Montreal, QC

- Enhanced the lab's computational power and data capacity by establishing a centralized storage and analysis server with an automated storage and backup suite involving cron, rsync, and RAID.
- Eliminated research data loss and increased throughput by 500%.

PROJECTS

CANARY | Discord Bot | Python

Dec 2016 – Present | [github.com/idoneam/Canary](https://github.com/idaneam/Canary)

- Founded and contributed to Canary, a McGill Discord chatbot.
- Devised a function that fetches current weather conditions and warnings from Environment Canada using the **Requests** and **Beautiful Soup** libraries.
- Ensured build quality by reviewing and approving pull requests from other contributors to ensure successful integration.
- Directed and delegated group efforts for bugfixes and 60 features by 14 contributors.

TINDERIZER | Automation Script for Tinder | Python

July 2019 | github.com/jdicula/tinderizer

- Exploited a Tinder RESTful API vulnerability to access premium features.
- Implemented the **Requests** library to fetch and parse JSON responses for profile images, then compare them via **OpenCV** cross-correlation template matching.

RESEARCH

BIOLOGICAL AND ACTIVE MATERIALS LAB

Undergraduate Research Assistant

Oct 2015 – Present | Montreal, QC

Worked with Professor Allen Ehrlicher on cell mechanics projects:

- **Probing the Mechanosensitivity of α -actinin-4** | github.com/jdicula/fluoratio
Python
 - Created software to analyze and visualize microscopy image data using the **datetime**, **numpy**, **scikit-image**, and **seaborn** libraries.
 - Reduced runtime from 1.5 hours to 12 minutes using the **multiprocessing** library to parallelize workflow over idle processor cores.
- **Magnetic Microrheology** | github.com/jdicula/magtrack
Python
 - Created software to track objects in microscopy images and load their spatial positions into DataFrames for further analysis and visualization.
 - Integrated the **Trackpy**, **pandas**, **numpy**, **scikit-image**, and **seaborn** libraries into workflow.

NATURAL LANGUAGES

ENGLISH

Native proficiency

FRENCH

Conversational and basic reading comprehension