

Johanan Idicula

Blog: forcepush.tech | GitHub: github.com/jidicula | LinkedIn: linkedin.com/in/jidicula
Developer Story: stackoverflow.com/story/jidicula | Stack Overflow: bit.ly/jidicula-stackoverflow
+1-450-626-5558 | johanan.idicula@gmail.com | Saint-Lambert, QC, Canada

Agile Developer That Leaves No Team Member Behind

EMPLOYMENT

SOFTWARE DEVELOPER Digital HR, Department of National Defence, Government of Canada
Oct 2020–Present | Remote

- Developing an applicant tracking system in **Django** used by over 1000 applicants and 300 managers (civilian-careers-defence.canada.ca).
- Leading team's move towards a pure **CI/CD** workflow with automated build, test, and code quality checks as well as autodeploy and autorelease workflows using **GitHub Actions**.
- Coaching a team of 9 developers and 2 UI/UX designers by filling a Scrum Master-like role: coordinating team's **self-organization**, helping team members resolve roadblocks, and encouraging team's **openness** and **continuous improvement**.
- **Git** Guru for team, sharing knowledge about best practices for rebasing, cherry-picking, history editing, and merge conflict resolution.

SOFTWARE DEVELOPMENT CONSULTANT NeuroPoly, Université de Montréal
Aug 2020–Present | Montréal, QC

- Led architectural and project management decisions for development on shimming-toolbox, a **Python** tool for quantitative MRI data acquisition (github.com/shimming-toolbox/shimming-toolbox).
- Migrated CI workflows from **Travis CI** to **GitHub Actions** for automated build and unit testing.
- Currently providing code reviews and insight on technical decisions on a casual basis.

JUNIOR SOFTWARE DEVELOPER Precision Analytics
Sep 2019–Dec 2019 | Montréal, QC

- Developed laboratory information management systems with customized data onboarding, analysis, and visualization **Shiny** dashboards using **R Tidyverse** libraries for clients in the pharmaceutical and biotechnology sectors.

RESEARCH

UNDERGRADUATE RESEARCH ASSISTANT Biological and Active Materials Lab, McGill University
Oct 2015–Sep 2019 | Montréal, QC

Worked with Professor Allen Ehrlicher on cell mechanics projects:

Probing the Mechanosensitivity of α -actinin-4 | github.com/jidicula/fluoratio | Python

- Analyzes and visualizes microscopy images using the **datetime**, **numpy**, **scikit-image**, and **seaborn** libraries.
- Achieved a $\frac{1}{N}$ runtime reduction using the Python3 **multiprocessing** library to parallelize the workflow using N idle processor cores.

Magnetic Microrheology | github.com/jidicula/magtrack | Python

- Worked with a Master's student to develop a novel technique for measuring the material properties of cells.
- Tracks objects in microscopy videos and loads their positions into **DataFrames** for analysis and visualization.
- Integrated the **Trackpy**, **pandas**, **numpy**, **scikit-image**, and **seaborn** libraries into workflow.

Cell Monolayer Deformation Microscopy | Publication under review | MATLAB

- Quantifies and visualizes cell monolayer deformation from microscopy images.
- **Cell Monolayer Deformation Microscopy reveals mechanical fragility of cell monolayers in the epithelial to mesenchymal transition**, 2020.

Amy A. Sutton, Clayton W. Molter, Ali Amini, **Johanan Idicula**, Maxwell Furman, Pouria Tirgar, Yuanyuan Tao, Ajinkya Ghagre, Newsha Koushki, Adele Khavari, Allen J. Ehrlicher.

HOBBY PROJECTS

GAMCO-NAV-CHECK Stock Value CLI Tool | Go, GitHub Actions

Mar 2021–Present | github.com/jidicula/gamco-nav-check

- Wrote a Go package (github.com/jidicula/go-gamco) for wrapping GAMCO's API for their closed-end funds (gabelli.com/funds/closed_ends).
- Wrote a CLI tool using the above Go module to fetch latest net asset value of each GAMCO closed-end fund, compare it with the stock's latest price on Yahoo Finance, and output a list of funds with a NAV/Price difference of $\geq 10\%$.
- Created CI/CD automations for both repositories using GitHub Actions for running lint, unit, and build tests as well as autorelease workflows for publishing new versions of the modules to pkg.go.dev.

RANDOM-STANDUP List Randomizer CLI Tool | Go, GitHub Actions

Mar 2021–Present | github.com/jidicula/random-standup

- Wrote a Go CLI tool for randomizing order of team updates in a standup.
- Created CI/CD automations using GitHub Actions for running lint, unit, and build tests as well as autorelease workflows for publishing new versions of the tool to pkg.go.dev.

CANARY Discord Bot | Python

Dec 2016–2020 | github.com/idaneam/Canary

- Founded and contributed to Canary, a McGill Discord chatbot.
- Wrote a feature that fetches current weather conditions and warnings from Environment Canada using the **Requests** and **Beautiful Soup** libraries.
- Wrote a feature that posts Métro service notifications using the **Requests** library and the Société de Transport de Montréal API.
- Enhanced code quality by reviewing contributors' patches to ensure elegant implementation and successful integration.
- Coordinated and delegated group efforts for bugfixes and 60 features by 17 contributors.
- Mentored and onboarded junior members by inviting new feature ideas and assigning them tickets suitable for beginners.

PRETINDER Proof of Concept for Tinder Exploit | Python

Dec 2016–Present | github.com/jidicula/pretinder

- Exploited a Tinder RESTful API vulnerability to access premium features.
- Created a proof of concept using the **Requests** library to accept and parse JSON responses for profile images hidden from non-Premium users, then compare them to profile images in the deck via **OpenCV** cross-correlation template matching.

EDUCATION

MCGILL UNIVERSITY B.Sc. Anatomy and Cell Biology

May 2020 | Montréal, QC, Canada

TECH

LANGUAGES

Advanced Knowledge of:

Python • Bash • C

Familiarity with:

L^AT_EX • SQLite • R • MATLAB

MySQL • JavaScript • Java

Go

TOOLS & LIBRARIES

Git • AWS • Debian GNU/Linux • Unix
macOS • Travis CI • HTML/CSS • Jira
Make • GDB • gprof • Emacs • Vim
GitHub Actions • Docker • Pandas
OpenCV • Flask • Requests • pytest
Poetry • Notion • Django • Streamlit
Jupyter Notebook • Sphinx

CONCEPTS

Advanced Knowledge of:

Image Analysis • Computer Vision
Data Visualization • Asynchrony
Agile Development
Modular Programming

Familiarity with:

Multiprocessing • Data ETL
Automation • RESTful APIs
Machine Learning • Data Exploration