# JULIEN PHILLIPS

**Computer Engineer (CEP)** 

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# PERSONAL PROFILE

Computer engineer with a passion for software development. Well-versed in writing code to create functional and dependable software. Eager learner who adapts quickly to new environments. Team player who enjoys working with others. Confident communicator in English and French, both orally and written.

# **EDUCATION**

#### McGill University - Bachelor of Computer Engineering

Montreal, Canada

### SKILLS

Languages: Python, Java, JavaScript, Node.js, Kotlin, C, Bash, HTML, CSS Technologies: Git, Django, Express.js, PostgreSQL, Firebase, MongoDB, Mongoose, Android Studio

# WORK EXPERIENCE

#### Research Intern

Nuance Communications

- Built a classifier capable of determining a conversation path based on data from call centres. Used the text from thousands of conversations and a predetermined set of rules to classify a conversation's intent.
- Created a dashboard to compare metrics between different build versions of the same project, displaying which metrics were suitable or regressing.
- Integrated support for custom metric baselines for different build versions in the dashboard in order to determine whether a build version is suitable based on client requirements.

#### **Research Intern**

Nuance Communications

- Created Python scripts that grouped utterances as dialogues to check if the software was behaving as expected over the course of a dialogue.
- Improved a parser to extract additional research data.
- Wrote a Bash script to automate the parsing of new files.
- Added support for German users to be able to pronounce English letter abbreviations in German and Germanized English.
- Enhanced a web-app's data visualization features to view specific metrics using HTML, CSS, JavaScript, Jinja2, Python and Chart.js.

# PROJECTS

#### Web Application for Measuring and Tracking Investment Portfolio Performance

Richduck.ca - Personal Project

- Developed the application from end to end using Django and successfully deployed it on a DigitalOcean Droplet using a PostgreSQL database within a VPC.
- Devised suitable data models for investments (stocks and ETFs) and implemented custom user models for authentication purposes.
- Achieved computation of performance metrics for a user's portfolio. Metrics included total gain (both dollar value and percentage), compound annual growth rate and average annual growth rate.
- Implemented a csv file upload system to add multiple investments at once, as well as a filtering and editing system to edit investments within the application.
- Designed and built frontend using HTML, CSS and Django's template language.

#### Menu Discovery Android Application

Fygo - McGill University Capstone Project

- Responsible for the complete development of the application in Kotlin.
- Integrated the application with existing Firebase database, with support to easily change databases in the future without breaking any frontend code.
- Designed and implemented frontend with similar design language to their iOS application counterpart.
- Used the MVVM design pattern in order to decouple Activities and Fragments from the application's business logic, allowing for easier development of testing suites.

# **Detecting & Tracking People in Video**

Computer Vision Course - McGill University

- Contributed to the creation of a pipeline capable of detecting, localizing and tracking individuals walking across a scene.
- Cleaned and set up the data, allowing my team to have suitable data to train the classifier.
- Devised and implemented the algorithm capable of localizing individuals within a frame of video.
- Played a secondary role in creating the classifier capable of detecting whether an image is a person or non-person.

Sept 2017 - Apr 2021

May 2020 - Aug 2020

May 2019 - Aug 2019

Sept 2021 - Oct 2021

Sept 2020 - Apr 2021

Jan 2021 - Apr 2021