

Cathal O'Callaghan

2nd Year Computer Science & Information Technology Student

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Personal Projects

News article web scraper

Python / Go

Wrote a scraper to gather news articles from a handful of websites daily for later data analysis. I plan on using this data set as an intro to NLP and some basic machine learning. Refactored the script into Go which improved runtime from 12 to an average of 2 seconds.

ZipTab chrome extension

Javascript

Developed a chrome extension to manage online browsing workspaces. The extension saves a snapshot of all active tabs for later use and syncs data across all chrome browsers that the user is logged into.

Using an OCR to cheat memory tests

Python

Combined Google's Tesseract OCR and python for a script capable of insanely high scores on an online verbal memory test. This script can beat any human score in minutes

Database parser

C

A program to parse the an open data set of all airports and aerodomes worldwide. I took on this project after my first year of C as a means of strengthening my knowledge of dynamic allocation and general knowledge of the language.

Studyclix user base analysis

Python

Collected my own data set of all users on studyclix.ie. With this I compared the average student to the average student on studyclix and gave some insight into what type of person the average studyclix user is.

Achievements

Interview candidate for Google 2020 STEP internship

After being selected based on my outstanding Github, I attended a Google algorithms workshop event where I was offered an interview for their summer STEP internship based on my performance. STEP is for 1st and 2nd year students pursuing a technical degree.

Volunteering

NUIG Compsoc

Ordinary committee member

I'm on the committee for the 2019/2020 NUIG Computer society. I help out with committee work and am learning a bit about the operation and maintenance of our servers on the side.

NUIG Drone society

Safety Officer

I am the 2019/2020 safety officer for the NUIG drone society. I help with the running of our events and am tasked with the safety of our members which is of paramount importance.

References

References available upon request

Summary

A motivated and diligent individual with a keen interest in the ever-expanding world of technology. Love the rewards that programming offers and it's never-ending challenges that it has to offer. Focused on applying my programming knowledge to convert abstract, real world problems into programming based solutions.

Education

BSc Computer Science and Information Technology

NUI Galway

09/2018 - Ongoing

Graduating in 2022.

Achieved and maintaining a 1:1 grade level. A grades obtained in C programming, web development and java programming.

Favorite Modules

Algorithms & Information Systems - Discrete Mathematics
C Programming - Software Engineering
Object Orientated Programming - Web Development
Database Systems - Networks & Data Communications

Publications

Tesseract & Python OCR Guide

Wrote a post for NUIG's Compsoc wiki page that taught beginners how to recreate my own project step by step.
<https://bit.ly/37ogKsN>

Language Experience

100% is my most well known language

Python

C

Javascript

Java

Go

Interests

Music

I am an avid techno fan. When not listening to techno I like to practice DJ'ing and occasionally upload my sets online.

Drones

Have built two custom quadcopters since I gained interest in the hobby and love everything that comes with the constant maintenance and flying of drones. I have learned more than I could've imagined from the electronics work that I've had to do after many crashes.