

# CALTHAL O'CALLAGHAN

## 2nd Year Computer Science and Information Technology Student

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## PERSONAL PROJECTS

### Database parser

C

📅 June 2019

- A program to parse and provide search functions for a global database file on airports. I used data from OpenFlights which has over 10,000 entries from airports and aerodomes. Each entry has 14 data points that range from name and ICAO code to it's exact coordinates.
- I took this on as my end of year C project to strengthen my knowledge of memory allocation, use of structures and apply my work to some real world data to do something interesting.

### Web scraping and data science

Python, R

📅 July 2019

- I did analysis of the userbase of the popular exam related website studyclix.ie. I compiled the stats of all the users and compared them to the average student based on official SEC (State Examinations Commission) data. This was my first data science related project and I thoroughly enjoyed working through it.
- The data was not compiled in any way shape or form initially so I had the fun job of compiling roughly all 8,000 student's information into a usable format for later data analysis.

Python

📅 July 2019

- I wrote a python script for scraping the daily news article headlines from various news outlets such as CNN, BBC, The Guardian and RT. The automated script runs every day and collects roughly 500 articles from each website.
- Data such as the current date, article section and most importantly the title are collected. In a few months time after I get a sufficient amount of articles I plan to do an analysis on the trends of certain keywords over time.

## VOLUNTEERING

### Public Relations Officer

NUIG Drone Society

📅 09/2018 - Present

📍 NUI Galway

I was the 2018/19 academic year public relations officer (PRO). I help organise our meetings and events and give technical support to our members with drone maintenance, construction and operation.

### First Year Representative

NUIG DJ Society

📅 09/2018 - 06/2019

📍 NUI Galway

I was the first year representative for the society. I represented the first year membership of the society. When the society played in the local college bar I helped out.

## LIFE PHILOSOPHY

I am a motivated and diligent individual with a keen interest in the ever expanding world of technology. I pride myself on my dedication to whatever I am tasked with. I love the never ending rewards from problem solving that programming has to offer.

## MOST PROUD OF



### Drones

In 2016 I taught myself all about the workings and maintenance needed to build and fly my own custom-built racing quad-copter. Learning about the circuitry behind it was quite interesting as I had never worked with circuitry before.



### Outstanding attendance

Throughout my time at Colaiste Einte my attendance was near perfect every year. I pride myself on always being punctual.



### Foreign Languages

O2(80-90%) in Leaving Certificate Irish. H3 (60-70%) in Leaving Certificate German.

## STRENGTHS

Self-Motivated

Driven

Curious

Problem Solving

## EDUCATION

### B.S. Computer Science and Information Technology

NUI Galway

📅 September 2018 - Ongoing

Graduating in 2022

### Leaving Certificate

Colaist Einte

📅 September 2013 - June 2018

5 Honours in my Leaving Certificate. Subjects include Applied mathematics, Design and Communication Graphics, Physics and German