Gary Carroll

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EDUCATION

University College Dublin
MSc Computer Science - Grade: 1.1   *May. 2023 – Dec. 2023*

University College Dublin
HDip Computer Science - Grade: 1.1   *Sep. 2022 – May 2023*

University College Dublin
BSc Physics with Astronomy and Space Science - Grade: 2.1   *Sep. 2017 – May 2021*

PDLS College Bagenalstown
Leaving Certificate - 532 Points, All Ireland Scholarship Received   *Sep. 2011 – May 2017*

EMPLOYMENT

Junior Data Analyst, Predictive Analytics   *January 2024 – Present*
National Treasury Management Agency
- Extensive use of R, SQL, Tableau and Tableau Prep Builder

CNC Machinist   *June 2021 – Sep. 2022*
Burnside Hydracyl, Ballymoon, Carlow
- Wrote programs for and operated two CNC milling machines
- Trained others in the programming and use of these machines

Crew Member   *June 2019 – Aug. 2019*
McDonalds, Hebron Rd, Kilkenny

Sales Assistant   *Sep. 2018 – May 2019*
IT Star, Stephen's Green Shopping Centre, Dublin

COLLEGE PROJECTS AND MODULES

MSc Modules | *Data Analysis, Python, SQL, R*   *Sep. 2023 – Dec. 2023*
- Machine Learning with Python, Data Programming with R, Big Data Programming, Cloud Computing, Data Mining

MSc Research Practicum | *Python, PostgreSQL, Data Analysis*   *June 2023 – Aug. 2023*
- Acted as data lead in development of full-stack web application as part of 6 person team
- Utilised PostgreSQL and Python to prepare large data sets and train predictive models using these data
- Wrote route-generating algorithm in Python to create routes through quietest areas of Manhattan
- Created a Python web scraper to scrape 6 years of historical weather data

HDip Modules | *Data Analysis, Python, SQL, Java, JavaScript, HTML, CSS*   *Sep. 2022 – May 2023*
- Python Programming, Python OOP, Data Analytics, Data Structures & Algorithms, Relational Databases & Information Systems, Java, Software Engineering, Operating Systems, Web Application Development, Networks & Internet Systems, Computational Thinking

Relevant Undergraduate Work | *Python, Data Analysis, Photometry*   *Sep. 2020 – May 2021*
- Final Project: Photometric Analysis of the Galactic Type I Cepheid Variables V508 Mon and Y Aur. Completed using Python
- Computational Lab: Electrostatic Randomisation Computational Experiment. Completed using Python

Personal Project | *Data Analysis, Python*
- Analysis of my last 3,000 chess games on Lichess, obtained using Lichess Python API
- Chessboard heat maps of opening moves and of my king's position at checkmate for white and black pieces
- Graphs of my performance by day and hour
- Rating progression line charts showing my average rating and that of my opponents
- Graphs showing results of games, e.g. checkmate, resignation, timeout.

SKILLS

Python, R, Tableau, SQL, Data Analysis & Visualisation, Excel, LaTeX, Computational Mathematics