

# EDWARD BLAIR

[edwardblair@hotmail.co.uk](mailto:edwardblair@hotmail.co.uk) ♦ Belfast, NI

[LinkedIn](#) ♦ [GitHub](#)

## EDUCATION

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**Queen's University Belfast** 2018-2023

**MEng Computer Science Including Professional Experience (First Class Honours)**

Passionate about the fields of blockchain, cybersecurity and formal methods.

<b>4th Year Modules</b>	Advanced Computer Engineering (83%), Research and Development Project (74%), Fairness, Interpretability and Privacy in Machine Learning (73%), Parallel and Distributed Computing (71%), Digital Transformation: Software Design, Management and Practical Implementation (67%)
<b>3rd Year Modules</b>	Malware Analysis (85%), Network Security (78%), Formal Methods (74%), Advanced Computer Architecture (63%), Cloud Computing (61%), Video Analytics and Machine Learning (58%)
<b>2nd Year Modules</b>	Architecture and Networks (87%), Data Structures, Algorithms and Programming Languages (80%), Theory of Computation (80%), Professional Computing Practice (78%), Information Modelling (76%) Software Development: Processes and Practises (67%)
<b>1st Year Modules</b>	Databases (86%), Reasoning for Problem Solving (80%), Programming (77%), Architecture and Networks (77%), Introduction to Software Engineering and Project Management (57%)

**Our Lady and St Patrick's College Knock** 2011-2018

**A-Levels** Digital Technology (A\*), Religious Studies (A\*), Geography (A), AS Spanish (A)

**GCSE** 7A\* 3A

## WORK EXPERIENCE

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**Data Analytics Engineer** Allstate Northern Ireland August 2023 - Present

- Development, deployment and testing of data pipelines using both industry-standard and in-house software
  - Inaugural team member to onboard to and utilise a 3-rack Nvidia Tesla GPU cluster, facilitating the automation of a key deep learning pipeline via Rundeck and Domino
- Leveraging customer and quote data, closely liaising with parent company in the USA, allowing them to make informed business decisions
- Collaborating within a tight-knit, hybrid team using the agile development methodology
- Frequently presenting to stakeholders at bi-monthly sprint review meetings

**Data Analytics Engineer Intern** Allstate Northern Ireland August 2020 - 2021, June 2022 - August 2022

- Year of Professional Experience
- Defined and maintained an Apache Groovy testing framework for flattening large, nested JSON structures
- Worked within a multidisciplinary team of Data Analytic Engineers and Data Scientists
- Returned to ANI for a 3-month Summer internship, upon completion received the offer of a permanent role

## SKILLS

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**Languages** Python, Java, C++, HTML, CSS

**Frameworks** Bootstrap

**Tools/Other** Git, Unix, AWS Scalify, VersionOne, Jupyter, Domino Data Lab, LaTeX

## MASTER'S PROJECT

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### Preprocessing Techniques for The Model Counting Problem (#SAT) Python, C, LaTeX

- #SAT involves counting the number of distinct satisfying assignments to variables for a given instance of the satisfiability problem (SAT)
- Both SAT and #SAT belong to a class of computational problems for which an efficient solution algorithm is yet to be found
- Developed three Python scripts to apply preprocessing techniques to formulae in Conjunctive Normal Form
- Proposed a novel metric to quantify how well the variables of a boolean formula are ordered
- Dissertation produced in LaTeX, enterprise-standard tools such as GitHub utilised for version control and documentation

## EXTRACURRICULAR PROJECTS

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### edwardblair.eth.link HTML5, CSS3, JavaScript, Ethereum Name Service

[GitHub](#)

- Responsive personal portfolio website
- Decentralised website - built on the Ethereum Blockchain and deployed using Fleek
- Resilient to single points of failure and censorship

### CryptoWebscraper Python, Reddit, Jupyter Notebook

[GitHub](#)

- Lack of ability to determine the most frequently discussed cryptocurrencies on a SubReddit led me to develop my own
- Python script which scrapes title data from a user-defined SubReddit
- Determine the most frequently mentioned cryptocurrency in the first  $x$  “hot” posts
- Results are presented graphically within a Jupyter Notebook

## VOLUNTEERING/OTHER EXPERIENCE

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### Waiter The Portaferry Hotel

June 2018 - January 2021

- Collaborating with customer-facing staff and back-of-house team members in a fast-paced environment honed strong communication and teamwork skills
- Responsible for subdividing tasks between other team members to ensure smooth running of restaurant in absence of manager
- Helped ensure compliance with dynamic Covid regulations

### Volunteer Habitat for Humanity

September 2016 - August 2017

- As part of a team, successfully raised funds to travel to Comănești, Romania, where we assisted with the construction of a group of houses for less fortunate families

### Volunteer National Trust Stranford Lough Rangers

June 2016 - August 2016

- Helped care for the landscape, wildlife, flora and fauna of Strangford Lough, an Area of Special Scientific Interest in County Down
- Habitat maintenance and species monitoring
- Work ensured safe, accessible and enjoyable visits for the public

## REFEREES

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**Allstate Northern Ireland Manager (current)**  
**Allstate Northern Ireland Manager**

Roger Priestly - [Roger.Priestly@allstate.com](mailto:Roger.Priestly@allstate.com)  
Ryan McKeown - [ryanmckeown@mail4me.com](mailto:ryanmckeown@mail4me.com)