

TIMOTHY R. CARGAN

UK | @timcargan | cargancode.io

SUMMARY

I'm a global citizen, having lived, studied, and worked in Europe, Asia, and North America. I have a passion for machine learning, big data and cutting-edge technology. I'm interested in developing state-of-the-art, novel solutions to solve real-world, practical, problems. Currently, I'm working on my Ph.D. at the University of Nottingham with a preliminary title "Forecasting and use Optimization of Solar Irradiance." The primary focus is to use machine learning to develop models and techniques to maximise the effective use of solar energy by forecasting production and integration of battery systems. Having started as a teenage coder I've put my skills into action in several ways over the years; I worked full-time with a London based consultancy on AI and big data projects across a range of industries, leveraging many cloud-based technologies; In high school, I developed and supported Autocrat, a document merge tool used by hundreds of thousands of users; I collaborated with others to organize the first TeenTech New York, a conference for over 150 high school students.

EDUCATION

University of Nottingham | *Notts., England* | Sept 2019 – Present

- Ph.D. – Compute Science "Forecasting and use Optimization of Solar Irradiance"

University of Nottingham | *Notts., England* | Sept 2015 – July 2019

- Undergraduate – Computer Science and AI with Year in Industry, BSc Hons, 1st Class

United Nations International School | *New York, USA* | Aug 2013 - May 2015

Singapore American School | *Singapore, Singapore* | Aug 2010 – June 2013

Dorothy Stringer Secondary School | *Brighton, England* | Sept 2008 – Jul 2010

WORK EXPERIENCE

University of Nottingham | *Notts., UK* **Teaching Assistant** | Sept 2019 – Present

- Helping students in labs as well as marking coursework and exams for computer science modules; Big Data and ML, Programming (Python), Paradigms (Haskell & Java).

Elastacloud | *London, UK* **Data / Research Engineer** | May 2019 – Present

- A mix of part- & full-time work for both internal research projects as well as client facing assignments. Most recently, Aug – Oct 2021, a fulltime client facing project.
- Data analysis and model development primarily using PySpark and TensorFlow
- Designing and implementation of data planforms and pipelines using cloud tech.
- Work using agile methodology and collaboratively with remote team members.

Elastacloud | *London, UK* **Data Engineer (Year in industry)** | July 2017 – Sept 2018

- After a successful summer internship returned to complete my year in industry.
- On site experience partnering with clients at FTSE 250 and fortune 100 companies.
- Implemented large scale, distributed data architectures in both the cloud and on prem.

Elastacloud | *London, UK* **Internship** | June 2016 – Sept 2016

- Built data pipeline using Spark and other Azure PaaS e.g., EventHub's, Stream Analytics
- Creation of tech demos leveraging Google Cloud technology such as Dataflow, BigQuery, Pub/Sub as well as integrating ML using Tensorflow.

New Visions for Public Schools | *NYC, USA* **Internship** | Aug 2013 – Aug 2015

- Building, maintaining and support of a Google sheets add-on named autoCrat.
- Part of the pre-release group working with the Google team to launch add-ons.

SKILLS / ACADEMIC ACHIEVEMENTS

Programming | Python, Scala, Java, SQL, git, AGILE, Spark, TensorFlow

Cloud Development | Microsoft Azure, Google Cloud

International Baccalaureate Diploma | May 2015

AP Computer Science (5) | Jun 2013

Singapore American School Excellence Award for Robotics | Dec 2012

VOLUNTEER SERVICE

UoN Climbing Club | *Notts., UK* **Treasurer** | July 2021 – Present

Elected to the climbing club committee as treasurer, responsible for creating and managing the club's budget; work with other members to ensure events and trips run.

GURU | *Notts., UK* **Mentor** | Sept 2016 – June 2017

Selected to be one of 12 Computer Science Gurus. helped first year students adapt to studying at university and become acquainted with the school.

TeenTech NY | *NYC, USA* **Advisor, Co-Founder** | April 2014 – 2017

Played a leadership role in co-founding and organising TeenTech NY, a project run by student technology leaders aged 14 to 17. The first event took place in Autumn 2014 and saw over 150 high school students meet technology professionals at Microsoft NYC.

AWARDS AND ACKNOWLEDGEMENTS

- Undergraduate Best Dissertation 2019 – Highest mark on individual project
- Undergraduate High Achiever Award 2015-2016 – A top 10 student in my year
- Xerox Award for Innovation and Information Technology (2014)
- Featured as part of the launch of autoCrat and encouraging technology in New York public schools <http://www.newvisions.org/blog/entry/scripts-are-for-kids-too> (2014)
- Invited to present to a group of NYC Computer Science teachers at a Google event, providing a student's perspective to teaching Computer Science (2013)

HOBBIES AND INTERESTS

Photography | Climbing | Scuba Diving | Walking | Skiing | Travel

REFERENCES

Available on request