



# Leo Muckley

Data Scientist | Researcher

- Cork, Ireland
- <https://leomuckley.com>
- [leo\\_muckley@outlook.com](mailto:leo_muckley@outlook.com)
- +353 87 412 8861

## Social Network —

- leomuckley
- leo-muckley

## Technical Skills —

- Proficient: **Python, TensorFlow**
- Familiar: **R, SQL, PyTorch**
- Used: **Spark, C++, D3.js**
- Experienced in Git, Jira, LaTeX, Linux and Google Cloud Platform

## Soft Skills —

- **Communication skills:**  
Presented research findings to audiences of varied technical expertise
- **Strong work ethic:**  
Demonstrated effective time management while working under pressure
- **Teamwork skills:**  
Experienced at working in collaborative environments and practised in exchanging ideas

## Interests —

- Kaggle
- Machine Learning Meetups
- Hiking
- Photography

## Education

### University of Edinburgh

- **MSc Data Science** 2018 – 2020  
Result: **Merit**  
Coursework: Machine Learning & Pattern Recognition, Probabilistic Modelling & Reasoning, Data Visualisation, Automatic Speech Recognition, Statistical Methodology, Fundamentals of Optimization, Data Mining & Exploration

### University College Cork

- **BA Economics & Mathematical Studies** 2015 – 2018  
Result: **First Class Honours**  
Coursework: Computational Data Analytics, Differential Equations and Dynamical Systems, Econometrics, Linear Predictive Modelling, Game Theory, Linear Algebra, Discrete Mathematics, Fundamentals of Internet Computing  
**Awards:** Title of College Scholar (2016, 2017, 2018)

## Experience

### Eaton Centre for Intelligent Power

- **Data Scientist** Jan 2020 - Present
- Contributed expertise in **data science** and **research** to projects within the Eaton AI team
- Collaboratively developed a portfolio of **deep learning** techniques to accurately categorise supply-chain transactions resulting in significant cost savings for the company
- Worked in an **agile environment** and regularly communicated project findings to business stakeholders
- Ensured the best **software development** practises using object oriented programming principles for readable and reusable Python code
- Exposed to all steps of the data science project life-cycle, from initial feasibility study to **productization**
- Experienced at writing **patents** with applications in the areas of **rule-based classification**, **active learning** and **multi-agent systems**

### Adapt Centre, Trinity College Dublin

- **AI Research Intern** May 2018 – August 2018
- Assisted the team in the training and testing of a model to produce a **neural network dialogue agent**
- Created an annotation scheme to be used for the identification and annotation of topic in future corpora
- Determined statistically significant relationship between utterance duration and topicality of conversation in research

## Projects

- Submitted and presented my MSc thesis at the *25th International Conference on Pattern Recognition*, which comprised of a **novel** solution for accurately predicting flood extent, namely a **Multi-Input ConvLSTM**  
[[Project Link](#)]
- Developed an **ordinal regression** technique to successfully predict childhood learning outcomes by utilising data from a game-based learning tool in early childhood education  
[[Project Link](#)] (Data Science Bowl competition 2019: Top 7% Finish)
- Adopted transfer learning, via an **EfficientNet** model, to correctly classify leaf disease in Cassava plants with accuracy of 88.5%  
[[Project Link](#)] (Kaggle competition: *currently in progress*)
- Utilised Kaldi toolkit to build hybrid Hidden Markov Model/Neural Network based **automatic speech recognition** systems for word recognition tasks