T H O M A S   H O L L I S

🌐 Dual French/British National   www.thomashollis.com ↖

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EDUCATION

University of Toronto (2018-2020)   Toronto, Canada
MSc in Applied Computing (Machine Learning) - <u>GPA</u>: 4.0/4.0
Select courses: Machine Learning & Data Mining, Neural Networks & Deep Learning, Blockchain Eng.
Master Thesis: Machine Learning Forecasting for Financial Fundamentals in Valuation Investing

The University of Manchester (2015-2018)   Manchester, UK
BEng (Hons) in Electrical & Electronic Engineering - <u>GPA</u>: 84.3% (equivalent to 4.0/4.0, top 5%)
Select courses: Digital Systems Design II (96%), Mathematics (93%), C programming (88%)
Bachelor Thesis: Deep Learning Algorithms Applied to Blockchain-Based Financial Time Series (92%)

WORK EXPERIENCE

Machine Learning Intern – Valsys (May 2019 - December 2019)   London, UK
Machine learning research placement in a fintech startup. Main research topic: Machine Learning
Forecasting Techniques For Company Financial Fundamentals In Long-Term Value Investing

Electronic Engineer Intern – Airbus, MBDA (Jun-Aug 2016, Jun-Aug 2017)   Stevenage, UK
Lead the summer placement team in missile electronics. Designed a comprehensive solution to power
distribution architecture issues of defence systems. Details bound by the UK's Official Secrets Act (1989).

Laboratory Researcher – Institut J. Monod, CNRS (Spring 2014)   Paris, France
Team research in surfactant dynamics of Taylor-Couette systems, data collection and scientific computing.

PUBLICATIONS

Fardin, M.A., Hollis, T. et. al. (2014) 'Flow instabilities in large amplitude oscillatory shear: A cautionary tale', *Rheologica Acta*, 53(12), pp. 885–898. doi: 10.1007/s00397-014-0818-7.

SELECT PROJECTS

LSTM Attention – Investigation into adding Attention to LSTMs in time series (developed, written in Python/TensorFlow)
HFCrypto – Innovative deep-learning trading algorithm for cryptocurrencies (in progress, written in Python/TensorFlow)
RainCrypto – Multi-cryptocurrency ticker system for the Windows desktop environments (developed, written in Rainmeter)
ESP-18 – Line following racing bot using autonomous PID control and proximity sensing (built & developed, written in C)
uClk – Clock timer embedded system with automated luminosity and temperature sensitive alarm (developed, written in C)

LANGUAGES & SOFTWARE

English (Native - ILR level 5), **French** (Native - ILR level 5), **Spanish** (Professional - ILR level 3), **Corsican** (ILR level 1)

Programming   Python, R, C, C++, MATLAB (Proficient); Java, HTML, UNIX/Bash, Assembly (Conversational)

Tools & Libraries   Git, Scikit-learn, Numpy, Keras/TF, PyTorch (Predilection: Optimisation, Time Series Modelling)

AWARDS & CERTIFICATIONS

Pelmorex Scholarship in Applied Computing	**Mitacs Accelerate Fellowship (C$30,000 grant)**
Addictive Mobility, University of Toronto (2018)	Canadian Government, University of Toronto (2018)
Bachelor Thesis Project Prize (1st of 250 classmates)	**BCG Mentorship Competition Winner (top 5%)**
The University of Manchester (2018)	Boston Consulting Group (2017)
NI Engineering Leadership Scholarship	**Hackathons & Coding Competitions**
National Instruments (2016)	Kaggle (various), Google (2016-2019), MLH (2017)
UK National Security Clearance (SC)	**Accredited Engineering Technician (EngTech)**
Security Vetting (Defence Business Services/MoD)	Institution of Engineering and Technology (IET, 2017)

Interests: Blockchain, Machine Learning, Consciousness, Skydiving, Competitive Swimming, Baroque Piano (Grade 7)