THOMAS HOLLIS

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github.com/PsiPhiTheta

EDUCATION

University of Toronto (2018-2020) Toronto, Canada
MSc in Applied Computing (Machine Learning) - Current GPA: 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 - GPA: 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
Addictive Mobility, University of Toronto (2018)
BCG Mentorship Competition Winner (top 5%)
Boston Consulting Group (2017)
NI Engineering Leadership Scholarship
National Instruments (2016)
UK National Security Clearance (SC)
Security Vetting (Defence Business Services/MoD)
Mitacs Accelerate Fellowship (C$30,000 grant)
Canadian Government, University of Toronto (2018)
Bachelor Thesis Project Prize (1st of 250 classmates)
The University of Manchester (2018)
Hackathons & Coding Competitions
Kaggle (various), Google (2016-2019), MLH (2017)
Accredited Engineering Technician (EngTech)
Institution of Engineering and Technology (IET, 2017)

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