THOMAS HOLLIS

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github.com/PsiPhiTheta

EDUCATION

University of Toronto (2018-2020) Toronto, Canada
MSc in Applied Computing (Machine Learning) - 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 Long-Term Value Investing

The University of Manchester (2015-2018) Manchester, UK
BEng (Hons) in Electrical & Electronic Engineering - GPA: 84.3% (1st Class, top 5% of the class)
Select courses: Digital Systems Design (96%), Mathematics (93%), DMC (92%), C programming (88%)
Bachelor Thesis: Deep Learning Algorithms Applied to Blockchain-Based Financial Time Series (92%)

WORK EXPERIENCE

Machine Learning Engineer – Valsys (May 2019 - Present) London, UK
Machine learning research in a fintech startup. Research focussed on machine learning forecasting for company financial fundamentals in long-term value investing (quantamental time series modelling).

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 (Proficient); SQL, Java, MATLAB, C++, UNIX/Bash, Assembly (Conversational)

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

AWARDS & CERTIFICATIONS

Pelmorex Scholarship in Applied Computing
Addictive Mobility, University of Toronto (2018)
Bachelor Thesis Project Prize (1st of 250 classmates)
The University of Manchester (2018)
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)
BCG Mentorship Competition Winner (top 5%)
Boston Consulting Group (2017)
Hackathons & Coding Competitions
Kaggle (various), Google (2016-2019), MLH (2017)
Accredited Engineering Technician (EngTech)
Institution of Engineering and Technology (IET, 2017)

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