# THOMAS HOLLIS



Dual French/British National

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github.com/PsiPhiTheta

#### **EDUCATION**

University of Toronto (2018-2020)

Toronto, Canada

MSc in Applied Computing (Current GPA: 4.0/4.0)

Select courses: Bioinformatics, Computational Social Science, Machine Learning & Data Mining,

Blockchain Engineering, Neural Networks & Deep Learning

#### The University of Manchester (2015-2018)

Manchester, UK

BEng (Hons) in Electrical & Electronic Engineering (GPA: 84.3%, equivalent to 4.0/4.0)

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%)

## Hockerill Anglo-European College (2013-2015)

London, UK

International Baccalaureate (Result: 39/45)

HL - French (7) Physics (6) Maths (5); SL - English (7) Chemistry (6) Business (6); EE/TOK (+2)

## **WORK EXPERIENCE**

#### 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), Italian (ILR level 1)

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

Tools & Libraries Git, Scikit-learn, Numpy, Keras, TensorFlow (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)

Bachelor Thesis Project Prize (1st of 250 classmates)

The University of Manchester (2018)

**Hackathons & Coding Competitions** 

Kaggle (various), Google (2016-2018), MLH (2017)

Accredited Engineering Technician (EngTech)

Institution of Engineering and Technology (IET, 2017)

First Class Army Cadet

Royal Air Force (2015)

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