THOMAS HOLLIS

Student at The University of Manchester
BEng Electrical & Electronic Engineering

Dual French/British Nationality

Full driving licence

www.thomashollis.com

thomashollis1@gmail.com

github.com/PsiPhiTheta

Education

The University of Manchester
Bachelor's Degree (BEng Hons), Electrical & Electronic Engineering, 2015-2018 (<u>GPA</u>: 84%, top 10%)
Best modules: Digital Systems Design II (96%), Mathematics (93%), C programming (88%), Control Systems (88%), Electronic Circuit Design II (87%), Embedded Systems Project (85%), EMF (78%).

Hockerill Anglo-European College
International Baccalaureate, 2015 (<u>Result</u>: 39/45)
Subjects: HL: French (7) Physics (6) Maths (5), SL: English (7) Chemistry (6) Business (6) +2EE/TOK

Lycée Français Charles De Gaule
French AS Level, 2013 (<u>Result</u>: A), GCSEs, 2013 (<u>Result</u>: 5 A*, 4 A)

Work Experience

Software Engineer at ComClever
August 2017 - September 2017
Developed a machine learning solution to the PrediStock project. The solution developed was a 5-hidden-node, 3 layer, feedforward neural network AI for predicting optimal stock levels.

Electronic Engineer at MBDA
June 2016, 2017 – August 2016, 2017
Worked as part of a team on missile electronics. Details are confidential and bound by the UK Government Official Secrets Act (1989) and a non-disclosure agreement with MBDA and the MoD.

Laboratory Researcher at Institut Jacques Monod/CNRS & University Paris Diderot
February 2014
Undertook independent research in hydrodynamics, laboratory work with M.A. Fardin to determine the threshold of instability of water in Taylor Couettes, data collection and scientific computing.

Laboratory Assistant at Imperial College London
April 2012
Carried out 1st year university practicals on pH buffer action and presented on Personalised Medicine.

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.

Languages & Software

English (Native – IRL level 5), **French** (Native – IRL level 5), **Spanish** (Professional – IRL level 3)

Programming C, Assembly, VHDL, R, LabVIEW, MATLAB/Simulink, UNIX/Bash, Windows/Batch, BASIC, HTML, Python, WikiMarkup, LaTeX, Java.

Software Electrical (Altium, Visio, Zuken, NI MultiSIM, MPLABX, IPSA+), Acoustics (WinISD, Traktor S4, Virtual DJ, FL Studio, Audacity, Ableton), 3D CAD (SolidWorks, Google SketchUp), Office Applications

📁 Independent Projects

HFCrypto	Innovative deep-learning cryptocurrency trading algorithm (in development, in Python)
Altfolio	Trading portfolio of nine alt-coin cryptocurrencies (developed, exchanges via Poloniex)
RainCrypto	Cryptocurrency ticker for Windows 10 desktop environment (developed, in Rainmeter)
Bananamole	Website used to match university tutors with students (developed, in HTML, CSS, PHP)
ESP-18	Line following robot embedded system, using PID control (built & developed, in C)
uClk	Alarm clock embedded system with automatic light and heat detection (developed, in C)
CloudLight	RF controlled smart-light (built, used by award-winning film director Florent Agostini)

🧠 Online Courses

[MIT] Circuits and Electronics (6.002x)

[MIT] Exploring Black Holes (8.224x)

[MIT] Computer Systems Security (6.858x)

[Melbourne] Discrete Optimization (EcYeW)

[Princeton] Bitcoin & Cryptocurrency (bpKpq)

[ANU] The Violent Universe (ANU-ASTRO3x)

[Caltech] The Evolving Universe (Ay1001x)

[Caltech] Cryo-EM (ccp4bb)

[Columbia] MOS Transistors (ELEN E6302x)

[Stanford] Machine Learning (zVvo7)

🏅 Certifications

Engineering Leadership Scholarship
National Instruments

UK National Security Clearance (SC)
Security Vetting (Defence Business Services)

Hackathon Participant
Google (2016, 2017), MLH (2017)

Grade 7 Piano
Trinity College London

Powerboat Level 2
Royal Yachting Association

VHF Licence
Royal Yachting Association

International Certificate of Competence (ICC)
Royal Yachting Association

Sailing Level 3 (Catamaran, Windsurf, Funboat)
Fédération Française de Voile (FFV)

Duke of Edinburgh (Bronze)
The Duke of Edinburgh's Award

First Class Cadet
Royal Air Forces Association

Regional Standard Competitive Swimmer
The Amateur Swimming Association

Young Writers Creativity Award
Young Writers Anthology

➕ Voluntary Work

Contributor at Gridcoin Research
2016 - Present

Translator & Script Doctor for Similar Mind & Tré Productions
July 2016 – Present

Editor/Contributor at Wikipedia
May 2016 – Present

Event organiser for Gure Esku Dago
June 2015

75+ hours of volunteering at The IB
September 2013 - August 2015 (2 years)

Private tutor for The DofE Award & Bananamole
2012 - 2015 (3 years)