

THOMAS HOLLIS



Student at The University of Manchester
MEng Electrical & Electronic Engineering



Dual French/British Nationality



Full driving licence



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github.com/PsiPhiTheta

Education

The University of Manchester

Master's Degree (MEng), Electrical & Electronic Engineering, 2015 - 2019 (GPA: 84%, top 1%)
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 (Result: 39/45)
Subjects: HL: French (7) Physics (6) Maths (5), SL: English (7) Chemistry (6) Business (6) +2EE/TOK

Lycée Français Charles De Gaulle

French AS Level, 2013 (Result: A), GCSEs, 2013 (Result: 5 A*, 4 A)



Work Experience

Electronic Engineer at MBDA

June 2016, 2017 – August 2016, 2017

Working 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

Independent research in the field of hydrodynamics for the IB EE, laboratory work with M.A. Fardin to determine the threshold of instability of water in a Taylor Couette, data collection and processing.

Laboratory Assistant at Imperial College London

April 2012

Carrying out 1st year university practicals on pH and buffer action, managing the Imperial Department of Biochemistry Twitter page, and presenting 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, IPISA+), 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)
ESP-18	Line following robot embedded system, using PID control (built & developed, in C)
Bananamole	Website used to match university tutors with students (developed, in HTML, CSS, PHP)
uClk	Alarm clock embedded system with automatic light and heat detection (developed, in C)
Recontree	Automated USB scripting for task optimisation (developed, in DuckyScript)
CloudLight	RF controlled smart-light (built, used by award-winning film director Florent Agostini)

Online Courses

[MIT] Circuits and Electronics (6.002x)	[ANU] The Violent Universe (ANU-ASTRO3x)
[MIT] Exploring Black Holes (8.224x)	[Caltech] The Evolving Universe (Ay1001x)
[MIT] Computer Systems Security (6.858x)	[Caltech] Cryo-EM (ccp4bb)
[Princeton] Imagining other Earths (FRS 126)	[Columbia] MOS Transistors (ELEN E6302x)
[Princeton] Bitcoin & Cryptocurrency (bpKpq)	[Stanford] Machine Learning (zVvo7)

Certifications

Engineering Leadership Scholarship National Instruments	International Certificate of Competence (ICC) Royal Yachting Association
UK National Security Clearance (SC) Security Vetting (Defence Business Services)	Sailing Level 3 (Catamaran, Windsurf, Funboat) Fédération Française de Voile (FFV)
Hackathon Participant Google Hashcode 2016, 2017	Duke of Edinburgh (Bronze) The Duke of Edinburgh's Award
Grade 7 Piano Trinity College London	First Class Cadet Royal Air Forces Association
Powerboat Level 2 Royal Yachting Association	Regional Standard Competitive Swimmer The Amateur Swimming Association
VHF Licence Royal Yachting Association	Young Writers Creativity Award Young Writers Anthology

Voluntary Work

Contributor at Gridcoin Research 2016 - Present	Event organiser for Gure Esku Dago June 2015
Translator & Script Doctor for Similar Mind & Tré Productions July 2016 - Present	75+ hours of volunteering at The IB September 2013 - August 2015 (2 years)
Editor/Contributor at Wikipedia May 2016 - Present	French tutor for The DofE Award 2012 - 2015 (3 years)