

Theo Windebank

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Education

The University of Oxford

St. Catherine's College

MENG ENGINEERING SCIENCE - PREDICTED 2.1.

Sep. 2013 - Jun. 2017

- Awarded best third year team project. Designed hardware, a facility, and set of computational processes that make it possible to scan, process, upload, and save an entire human brain for possible future reanimation. This fine-tuned my team working skills and has broadened my data analysis skill-set.
- *Modules:* Machine Vision and Robotics · Machine Learning · Medical Imaging and Informatics · Probability, Systems and Perturbation Methods · Nonlinear and Predictive Control · Mathematical Techniques

Queen Elizabeth High School

Hexham

- *A-Levels:* A* Maths · A* Further Maths · A* Physics · A Product Design · A Extended Project
- *GCSEs:* 6A*s · 5As

Sep. 2008 - Jun. 2013

Experience

Machine Learning Research Group

University of Oxford

SOFTWARE DEVELOPER INTERN

Jul. 2016 - Sep. 2016

- Used a variety of machine learning techniques during my internship within the Oxford-Man Institute of Quantitative Finance, working on a project to detect mosquito presence, species, and gender from audio recordings.
- Developed a fully-featured python package to act as a test-bed for detection algorithms, aimed for a public open source release. This has improved my skills in coding for a long term project where the code will be further used and worked on by others.
- Planned and carried out a series of microphone tests to characterise and determine which offers superior detection performance. This resulted in a large batch of microphones being purchased and used to capture further biological recordings.
- Continuing work on this within my fourth year project, with plans to build high-level server-side and Android implementations as well as low level custom micro-controller implementations.

Engineers Without Borders

Oxford, UK

SOFTWARE DEVELOPER

Nov. 2015 - Mar. 2016

- Built a data collection system for a team to gather and process information on malaria cases in rural Peru with a PHP/MySQL back-end, improving my project management and team-work skills.

Communications, Sensors, Signal and Information Processing Research Group

Newcastle University, UK

RESEARCH ASSISTANT

Jul. 2015 - Sep. 2015

- Internship working on various sonar systems to image undersea objects beneath the seabed.
- Implemented a variety of processing techniques in MATLAB including delay-sum beam-forming, synthetic aperture focusing and signal filtering. Challenging problems encountered during the project enhanced my problem solving and research skills.

Skalene Ltd.

Cambridge, UK

MODELLING AND ANALYSIS TECHNICIAN

Jul. 2014 - Apr. 2015

- Simulated heat flow between parts of a novel PCR design used to amplify DNA, improving my modelling skills.

Oxford University Air Squadron

Oxford, UK

OFFICER CADET

Oct. 2013 - Jun. 2014

- Tutored to fly the Grob G 115 totalling 4hrs flight time, increasing my ability to make quick decisions in high-pressure environments.
- Challenged continually with intense individual and team-based activities, advancing team planning skills.

5PORE

WEB DEVELOPER / GRAPHIC DESIGNER / ARTIST

Sep. 2010 - Mar. 2015

- Designed, developed and maintained a website showing and selling personal work to clients worldwide, giving me strong interpersonal communication skills and experience running a self-directed project.

Skills

PROGRAMMING/SOFTWARE

- *Advanced:* Python · MATLAB · jQuery · JavaScript · \LaTeX · HTML · CSS · Git · Office Suite · Photoshop · Unix Shell
- *Intermediate:* PHP · C · C++ *Basic:* Java