

Theo Windebank

396 Bancroft Road, London, E14DH

☎ +447849199189

✉ windebank.theo@gmail.com

🏠 theowindebank.co.uk

🌐 linkedin.com/in/theowindebank

Education

The University of Oxford

St. Catherine's College

MENG ENGINEERING SCIENCE - CLASSIFICATION: 2.1.

Sep. 2013 - Jun. 2017

- Co-authored a paper relating to the findings of my fourth year project, 'Mosquito Detection with Neural Networks: The Buzz of Deep Learning'.
- Awarded the Gibb's prize for best third year team project. Designed hardware, a distributed computing 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.
- *Key Modules:* Machine Vision & Robotics · Machine Learning · Medical Imaging & Informatics · Probability, Systems & Perturbation Methods · Nonlinear & Predictive Control · Software Engineering · Information Engineering · Biomedical Modelling & Monitoring.

Queen Elizabeth High School

Hexham

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

Sep. 2008 - Jun. 2013

Experience

Cue Sense Ltd.

London, UK

SOFTWARE ENGINEER

Jun. 2017 - Current

- Lead the design of a comprehensive code-base for a product designed to help visually impaired people to interpret non-verbal cues, utilising computer vision and machine learning.
- Constructed the entire image processing, image classification, and binaural sound feedback pipeline for the software prototype, using Python 3.6 and a multitude of advanced data science techniques. This has built upon my experience of creating unique machine learning pipelines for novel applications.
- Followed strict OOP conventions and placed high emphasis on code design, refining my abilities in writing modular, expandable, and unit-tested packages to a professional level.
- Designed around challenging physical and economical constraints, helping expand my knowledge and practical experience in designing software architecture and core algorithms for market-facing products.
- Pitched the product to potential investors, heightening my awareness and understanding of the marketing and business aspects to developing a novel, innovative product.

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, resulting in a large batch of microphones being purchased and used to capture further biological recordings.
- Built upon this work within my fourth year university project, receiving a mark of 83 on final grading.
- Feedback from supervisors placed me in the top 5% of students who have worked with the Oxford-Man institute, confirming my ability to carry out high value work in this sector.

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.

SPORE

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 inter-personal communication skills and experience running a self-directed project.

Skills

PROGRAMMING/SOFTWARE

- *Advanced:* Python · Machine Learning [TensorFlow, scikit-learn] · Unit Testing · Data Science · Computer Vision · MATLAB
- Git · \LaTeX · HTML · CSS · Office Suite · Photoshop · Unix Shell
- *Intermediate:* jQuery · JavaScript · PHP · C · C++ \ \ *Basic:* Java