

# Alexandros Kastanos

alecokastanos@gmail.com | +44 7927 315192 | U.K. work authorisation | alecokas.github.io

## EDUCATION

### UNIVERSITY OF CAMBRIDGE

Master of Philosophy in Machine Learning and Machine Intelligence  
Oct 2018 - Sept 2019, Magdalene College  
MPhil class representative  
**Thesis title:** Uncertainty and confidence scores for sequence data (71%)

### UNIVERSITY OF THE WITWATERSRAND

**BSC IN ENGINEERING (ELECTRICAL)**  
Graduated with Distinction  
Jan 2014 - Dec 2017  
**Project title:** Adaptive digital hearing aid that adapts to a changing acoustic environment (90%)

## PROGRAMMING SKILLS

**Advanced:**

Python • PyTorch • Matlab • C++

**Intermediate:**

Tensorflow 2 • Flux.jl • Julia

**Beginner:**

Linux • SQL • Javascript • Assembly

## GRADUATE COURSES

Probabilistic Machine Learning •  
Computer Vision • Speech Recognition •  
Weighted Automata • Deep Learning and  
Structured Data • Computational  
Neuroscience • Advanced Machine  
Learning • Reinforcement Learning and  
Decision Making • Machine Translation •  
Speech and Language Processing  
Applications

## PERSONAL PROJECTS

### Machine Learning Blog

I maintain a blog on my website where I present interesting research, discuss concepts, and demonstrate frameworks.

### Health Aim

Proposed a computer vision based mapping tool to predict areas with poor access to public health in Uganda for the 2019 Geneva Challenge.

## EXPERIENCE

### OCADO TECHNOLOGY | MACHINE LEARNING ENGINEER

October 2019 - Present | Hatfield, United Kingdom  
Part of the 10x team, where I am responsible for the research and development of novel machine learning and Natural Language Processing (NLP) models. I work closely with other engineers and own my projects from inception to deployment.

### DEEP LEARNING INDABA | PRACTICAL TUTOR

Aug 2019 | Nairobi, Kenya  
Tested and reviewed the practicals, assisted participants during practical sessions, and presented a poster on confidence scores for speech recognition.

### PERALEX ELECTRONICS | SOFTWARE DEVELOPMENT ENGINEER

Jan 2018 - August 2018 | Cape Town, South Africa

- Worked in an agile team environment to introduce deep learning approaches to replace existing passive radar detection systems
- Designed and implemented a number of signal detection systems using Keras
- Used Python for dataset management

### PERALEX ELECTRONICS | VACATION WORK

Nov 2016 - Jan 2017 | Cape Town, South Africa

- Made improvements in multirate filtering software which were accepted into the open source Julia DSP library.
- Wrote a program that checks C++ coding conventions
- Coded a Perl script for source code management

## AWARDS

- MIT Press poster award, Deep Learning Indaba (2019)
- University of Cambridge Department of Engineering Scholarship (2018)
- Dean's List (top 10% of my class) throughout undergraduate (2014-2017)
- Top mark in Software Development III (84%) (2017)
- 2<sup>nd</sup> place poster at the electrical engineering department open day (2017)
- **Top student in third year electrical engineering** (2016)
- Top mark in Probabilistic System and Signal Analysis (99%) (2016)
- International Scholar Laureate Program (ISPL) award (2015)
- Awarded Golden Key South Africa Membership (2014)

## CONFERENCES AND PUBLICATIONS

### Papers

- A. Kastanos, A. Ragni, M.J.F. Gales, "Confidence Estimation for Black Box Automatic Speech Recognition Systems Using Lattice Recurrent Neural Networks", in ICASSP, 2020.

### Posters

- A. Kastanos, A. Ragni, M.J.F. Gales, "Confidence Scores for Sequence Data, Presented at the Deep Learning Indaba 2019.

## PERSONAL DETAILS

**Location:** London, United Kingdom

**Citizenship:** U.K. and South Africa

**Languages:**

English (Mother Tongue) • Greek (Basic) • Afrikaans (Basic)