Ka Long (Eden) Au

edenau.github.io

E-mail: eden.au@ed.ac.uk
Mobile: +44 7477 462267

Education

University of Edinburgh — Edinburgh, Scotland
Doctor of Philosophy in GeoInformatics — *Sept 2018 – present*
Fully funded by NERC, and in collaboration with the MET Office
Under Edinburgh Multidisciplinary Doctoral Training Partnership (E3DTP) programme
Topic: Using machine learning to parameterize climate and weather processes: a case-study on convection
Supervisors: Prof. Simon Tett, Prof. Amos Storkey, Dr. Keith Williams

University of Oxford — Oxford, England
Master of Engineering in Information Engineering; *ranked 3rd in cohort* — *Oct 2014 – Jun 2018*
Fully funded by John Swire & Sons Ltd., and funded by college and department
Specialized in machine learning and control theory
Thesis Topic: A generic model and a distributed algorithm for station based bike sharing systems
Supervisor: Prof. Kostas Margellos

Experience

Taro Studio — Edinburgh, Scotland
Co-founder — *Feb 2019 – present*
Designing a next-gen weather app that understands personalized environmental perception using machine learning

Royal Botanic Garden Edinburgh — Edinburgh, Scotland
Data Scientist — *Jan 2019 – present*
Analyzing spatial climate data to investigate the threats to tropical forest and carbon and biodiversity loss

HYPED — Edinburgh, Scotland
Software Engineer — *Sept 2018 – present*
Designing a pod navigation system using Kalman filter for Hyperloop, a revolutionary mode of transport

Oxford Strategy Group Digital — Oxford, England
Associate Digital Consultant — *Jan 2018 – Jun 2018*
A student-led digital consultancy in the UK
Provided digital consultancy service in data science

Hong Kong Government — Hong Kong
Administrative Service Summer Intern — *Aug 2017 – Sept 2017*
Conducted research on issues relating to application of IT to traffic-related matters

Projects

Codes are available on github.com/edenau.

- **Deep learning - *TensorFlow***: PhD project, analyzing spatio-temporal climate data by supervised learning
- **Data visualization**: visualized bike sharing systems using interactive maps and animations
- **Distributed optimization**: Master's project, constructed optimization algorithms in a distributed computing framework, and applied it to balancing bike sharing systems with significant improvement in performance
- **Camera calibration**: built a calibration algorithm for pinhole cameras by machine vision techniques
- **Engineering product design**: designed a novel prosthetics with use of fast and wireless communication protocols
- **Android APP**: designed a simple APP in four days for one to explore a city with ease
- **Interactive system design**: high school project, built a user-friendly examination sitting arrangement system

Skills

- **Programming languages**: Python, MATLAB, C, C++, Java, Pascal, Prolog, LaTeX
- **Technologies**: Git, Tableau, SolidWorks, GIS
- **Natural languages**: English, Mandarin, Cantonese, Taiwanese, Spanish
- **Writing**: data science blogger on Medium @edenau
- **Public speaking**: gave talks regarding NGOs, machine learning etc.