
EDUCATION

The University of Edinburgh

Edinburgh, Scotland

Doctor of Philosophy in GeoInformatics*Sept 2018 – present*

Fully funded by NERC, and in collaboration with the Met Office UK

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

Information Services Group, The University of Edinburgh

Edinburgh, Scotland

Digital Research Services Ambassador*Mar 2020 – present*

Identifying and documenting cases of good practice in using digital research services (e.g. HPC)

Promoting digital research services in local research communities

Medium

@edenau

Top Writer in Technology*Dec 2018 – present*

One of top 10 writers in technology

Lawrence Berkeley National Laboratory

Berkeley, CA

Research Fellow*Jul 2019 – Oct 2019*

Developed generative deep learning models for super-resolution of cloud resolving models

Taro Studio

Edinburgh, Scotland

Co-founder*Feb 2019 – Sept 2019*

Designed a next-gen weather app that understands personalized environmental perception using machine learning

Royal Botanic Garden Edinburgh

Edinburgh, Scotland

Data Scientist*Jan 2019 – Mar 2019*

Analyzed spatial climate data to investigate the threats to tropical forest and carbon and biodiversity loss

HYPED

Edinburgh, Scotland

Software Engineer*Sept 2018 – Jun 2019*

Designed 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

Project Access Hong Kong

Oxford, United Kingdom

Head of Admissions (Engineering Science), Advisory Board Member*Sept 2016 – present*

An international enterprise providing assistance to underprivileged students to apply for top universities

Provided academic training and mentorship to more than 10 students interested in Engineering Science

Hung Fook Tong

Hong Kong

Summer Intern*Jul 2016 – Sept 2016*

Analyzed data from their retail and e-commerce business and proposed business strategies

PROJECTS

Codes are available on github.com/edenau.

- **Super-resolution GAN:** Leveraged SRGAN in enhancing spatial resolution of cloud resolving model outputs
- **Deep learning:** 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, C++, MATLAB, Pascal
- **Markup languages:** Markdown, L^AT_EX, Beamer
- **Python frameworks:** NumPy, SciPy, pandas, Matplotlib, seaborn, scikit-learn, TensorFlow 2.0, Sphinx, Flask
- **Technologies:** GitHub, FFmpeg, SolidWorks, Rose-Cycle
- **Natural languages:** English, Mandarin, Cantonese, Taiwanese, Spanish
- **Public speaking:** gave talks regarding NGOs, machine learning etc.
- **Extracurricular:** Hass.io, neo-classical music, languages, (association) football

POSTERS

Au, E.K.L., Kashinath, K., Albert, A., Prabhat, M., Tett, S.F. and Brenowitz, N., 2019. Towards sub-grid scale parameterizations using a super-resolution generative adversarial network. In AGU Fall Meeting 2019. AGU.