XU LI

+44 (0)7415067720 ⋄ s2058650@ed.ac.uk
Old College, South Bridge, Edinburgh, EH8 9YL

EDUCATION

University of Electronic Science and Technology of China Sep 2016 - Jul 2020
B.Eng. of Electronic Information Engineering
Overall GPA: **3.73**/4.0

University of Glasgow Sep 2016 - Jul 2020
B.Eng. of Electrical and Electronic Engineering
Overall GPA: **3.71**/4.0 (First Class Degree)

University of Edinburgh Sep 2020 - Jul 2021
MSc. of Computer Science

COURSES

Semester 1

· Informatics Research Review - **73** (obtained so far)
· Human-Computer Interaction - **66.5**
· Case Studies in Design Informatics 1 - **73** (obtained so far)
· Algorithms and Data Structures - **69** (obtained so far)
· Introduction to Practical Programming with Objects - **69.5**

Semester 2

· Informatics Project Proposal
· Advanced Database Systems
· Operating Systems
· The Human Factor: Working with Users

PUBLICATION

Ning Xie, **Xu Li**, Kang Li, Yang Yang and Heng Tao Shen. "Statistical Karyotype Analysis Using CNN and Geometric Optimization." IEEE Access 7 (2019): 179445-179453.

RESEARCH EXPERIENCE

Automated Karyotype Analysis via CNN and Geometric Analysis Oct 2018 - Mar 2019
Research Assistant, supervised by Prof. Ning Xie

· Applied deep learning algorithms and geometric analysis to help doctors to segment and classify chromosomes.
· Designed a multi-scale Convolutional Neural Network (CNN) for chromosome classification by Keras, the performance was better than any state-of-art method.
· Built and trained our model on 500000 clinic samples in cooperation with Sichuan People's Hospital.

Atrial Fibrillation Detection via Machine Learning Jul 2019 - Aug 2019
supervised by Prof. Qammer H. Abbasi

· Built feature-based and deep learning-based approaches to detect and classify arrhythmia periods.
· Compared the performance of different models and the computing resources they consumed.
· Achieved the detecting and classifying accuracy of 96.04% and 86.00% with End-to-End CNN network.

Multimodal Semantic Segmentation based on Single CNN Sep 2019 - April 2020
Research Assistant, supervised by Dr. Hanmin Sheng

· Developed a universal architecture based on a single CNN that handles multiple medical segmentation tasks and is expandable for new tasks.
· Designed a domain adaption system to share the parameters between different modalities.

PROJECT EXPERIENCE

Tencent Advertising Algorithm Competition May 2017 - Aug 2017

- Implemented GBDT and FFM algorithm to the Click-Through-Rate of advertisements based on the user behavior data.
- Applied Pandas and Numpy to analyze the data. Employed XGBoost, LightGBM and xLearn frameworks to build the prediction model.

Smart Rover System with Dual-camera and GPS Feb 2019 - Jun 2019

- Written and optimized an automatic path planning algorithm based on the signals from ultrasonic sensor, magnetic field sensor, GPS module and dual camera.
- Written the business logic layer code for Raspberry Pi in Python.

SKILLS

Familiar with Python, Keras, Java, HTML/CSS/JavaScript, REACT and LaTeX.