MINGXI LEI

Los Angeles, CA

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EDUCATION

University of Southern California — Los Angeles, CA
M.S., Electrical Engineering (Data Science and Engineering) — Jan. 2019 - Present

- Cumulative GPA: 4.0
- Relative Courses: *Mathematical Pattern Recognition, Machine Learning of Signals*

Guangdong University of Technology — Guangzhou, China
B.Eng., Information Engineering (Signal and Image Processing) — Sept. 2014 – Jun. 2018

- Cumulative GPA: 3.59
- Award: Scholarship for Outstanding Students, Third Prize
- Relative Courses: *Programming Language, Data Structures, Digital Image Processing*

Chaoyang University of Technology — Taichung, Taiwan
Exchange Student, Information and Communication Engineering — Sept. 2015 – Jan. 2016

- Full Scholarship

PROFESSIONAL SKILLS

Programming Languages: Python, MATLAB, R, C/C++
Tools/Platforms: scikit-learn, opencv, ITK, pandas, (py)radiomics, glmnet, caret

EXPERIENCE

USC Radiomics Lab, Keck Medicine of USC — Los Angeles, CA
Summer Research Assistant — Jun. 2019 – Present

- Involved in a research project, basically responsible for multi-platform programming (Python, MATLAB, C) of medical image analysis software

Sun Yat-sen University Cancer Center — Guangzhou, China
Student Research Affiliate — Jun.2018 – Dec. 2018

- Remotely worked with my mentor on debug and correction of in-house medical imaging software
- Carried on a research project of quantitative MR image analysis of colorectal cancer, basically responsible for morphology, statistic, texture analysis and machine learning model programming

Bio-Totem Tech — Guangzhou, China
Research Intern — Dec. 2017 – May 2018

- Helped collect, clean and structure data of medical image
- Cooperated with web developers to build an online medical image analysis and machine learning platform. Mainly responsible for the design, revision and implement of algorithm, design and setting of hyperparameter
- Carried on a research project of quantitative MR image analysis of nasopharyngeal cancer, basically responsible for evaluating algorithms of imbalanced dataset (imbalanced-learn), machine learning model (scikit-learn)

PROJECTS

Mini Directed Research in Compressive Sensing (Undergraduate Project)

- Worked with my directed professor on testing performance of a $\ell 1$-homotopy based recovery algorithm on ECG signals using MATLAB
- Found the relationship between the SNR and the similarity of 15 lead ECGS
- Self-learned the postgraduate-level research background (math, algorithms, convex optimization, linear programming), edging topics, applications