

YUE (RAY) CAO

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EDUCATION

University of Michigan – Ann Arbor, College of Engineering

Ann Arbor, MI

B.S.E in Computer Science

September 2017 – April 2019 (Expected)

Coursework: Data Structures and Algorithms, Introduction to Operation System, Probability and Statistics, Computer Organization, Web Databases and Information Systems, Introduction to Computer Security

GPA: 3.8/4.0

University of Michigan – Shanghai Jiao Tong University Joint Institute

Shanghai, China

B.S.E in Electrical and Computer Engineering (ECE)

September 2015 – August 2019 (Expected)

Coursework: Programming & Elem. Data Structures, Logic Design, Signals and Systems, Technical Communication

GPA: 3.5/4.0

PROJECT EXPERIENCE

Statistics Online Computational Resource (SOCR) Toolbox Research Team

January 2018 - Present

Multidisciplinary Design Program – Faculty Research Project, University of Michigan.

- Establishing the risk prediction model for type 2 Diabetes and related outcomes in Dr. Sukaew's postdoctoral research
- Assisting in optimizing the online collections of educational materials and visualization tools in a web browser
- Contributing to the enhanced data analysis process for the use of advanced methods in probability and statistics

EcoWorks Educational Mobile Application Development

April 2017 - Present

Discovery Team, BLUELab, University of Michigan.

- Redesigned the tools for Detroit-based non-profit organization EcoWorks in Detroit to provide sustainable solutions
- Reinterpreted the energy smart curriculum in mobile apps by launching the responsive *React Native* v0.53 framework

Statistical Evaluation Website Program

April 2017 - August 2017

Commercial Project for Shanghai Yule Consultant Information Co., Ltd.

- Developed a multi-page web project with integration of features in fulfillment of the needs of managing survey results
- Built efficient and reusable front-end systems responsive for multiple viewports as smartphones and tablets
- Wrote clean, portable codes for front-end user interface components with *Bootstrap* v3.3.7 web framework standard

Fingerprint Identification with Deep Learning Technology

January 2017 - August 2017

"Participation in Research Program (PRP)", Shanghai Jiao Tong University.

- Employed the *Convolutional Neural Network (CNN)* to extract connectivity patterns among identical fingerprints
- Implemented the optimized algorithms for feature extraction and pattern recognition with Python and MatLab
- Conducted research utilizing training data resources with TensorFlow to raise the identification precision to 99.97%

A General Model for Refugee Crises

January 2016

Paper for The Mathematical Contest in Modeling Contest 2016 Successful Participant, COMAP

- Collaborated with teammates to develop a math model of evaluation and policy-making for refugee crises in Europe

SKILLS

Computer Languages: C/C++, Python, SQL, R, MatLab, HTML&CSS, JavaScript(React), Assembly(ARMv8)

Tools: Git, LaTeX, Arduino, SolidWorks, pSpice, Xilinx ISE, Microsoft Office, Adobe Creative Cloud

ACTIVITIES & AWARDS

Director of Marketing Department - Michigan China Forum Committee

December 2017 - Present

Member - Michigan Data Science Team

September 2017 - Present

Excellent Student - Shanghai Jiao Tong University

June 2017

Dean's List - Joint Institute

September 2016