Mobile 734-263-9234
alexdu@umich.edu

RESUME

PROFILE

Name : DU, Tianyuan (Alex)
Gender: Male
Age : 20
Language : English, Chinese

EDUCATION

01/2022- University of Michigan, Ann Arbor **USA**
GPA: 3.68/4.0
Major: Data Science(declared) and Computer Science(intended)
Core Classes: Human-Centric ML, Computer Vision, Robotics, Data Mining, Computer Security, Theoretical Statistics, Algorithms and Data Structure, Intro to Combinatorics

09/2020-12/2021 Hongkong University of Science and Technology (HKUST)
GPA: 3.65/4.3
Dual Degree Program in Computer Engineering & General Business Management (09/2020-12/2021)
Ranked 4th out of 150 in Bachelor of Engineering in Computer Engineering (09/2020-07/2021)

06/2019-08/2019 Carnegie Mellon University (CMU) **USA**
Pre-College Advanced Placement/Early Admission Program
GPA: 4.0/4.0
Courses: Methods for Statistics and Data Science; Fundamentals of Programming and Computer Science

PROJECTS AND EXPERIENCE

Capstone Project on Music Emotion Recognition
01/2023-now
Capstone project for undergraduate degree. Constructed a novel pipeline using Convolution Neural Network and Hidden Markov Model to predict continuous valence/arousal trends on music. Developed genre classifier using Random Forest.

Undergraduate Research on Radio Sensing
06/2022-now
Under guidance of Professor Alanson Sample and graduate student Yang-Hsi Su, worked on a novel system for indoor sensing with Bluetooth Low Energy antenna array. Presented weekly reports over the summer(June to August). Built a 2-dimentional real-time sensing pipeline based on the hardware, designed experiments to evaluate its performance. Intended submission to MOBICOM 2024.

Undergraduate Research on Speech Enhancement Algorithm
09/2021-02/2022, 09/2022-12/2022
Under guidance of Professor Kevin Chau from HKUST, worked on a paper for improving speech intelligibility of hearing aid devices. Conducted experiments to evaluate a novel method proposed in the paper. Under supervision of Professor Yuekai Sun from UMich, advanced the accuracy of the analytical method with machine learning techniques with Xinpei Shen and submitted as final project for class STATS415 (Data Mining) and received 98/100.

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Intern, HK Applied Science and Technology Research Institute (ASTRI)
06/2021-08/2021
Worked in Communication Division of Network Software Group, focusing on automated-driving vehicles to develop a system that could assist vehicles to park automatically. Developed an end-to-end automatic camera calibration pipeline with a senior engineer. Focused on mathematical analysis and code verification and performed experiments to test the effectiveness of algorithms. Our work was highly recognized by the group management team, and it was applied to the prototype for final pitch to the Hong Kong Government.

First Prize, CHINA THINKS BIG (CTB) Project Challenge National Final Competition
10/2018-03/2019
Team leader, led a team to conduct research on video games for the visually impaired. Presented our results in National Finals and won top 25 out of 3000 teams.

Tsinghua Open Research for Innovative Challenges (ORIC) program
Summer 2018
Worked and studied for 4 weeks at Tsinghua University. Conducted experiments combining biology and AI, building and programming electronic microscope and conducting microfluidic chip-based bacterial experiments. Acquired skills and knowledge in Raspberry Pi programming, Arduino, and industrial designing.