Tianyuan(Alex) Du │ Résumé

– **website: alextydu.github.io** –

☎ (734) 263 9234 • ✉ alexdu@umich.edu

Education

Bachelor of Science, Computer Science and Statistics (Double Majors)

University of Michigan, Ann Arbor   *2022/01 – 2024/05(expected)*

GPA: 3.80/4.00

Courses: Autonomous Robotics, Computer Vision, Data Mining, Human-Centric ML, Computer Organization, Data Structure, Combinatorics, Theoretical Statistics

Capstone: Predicting Song Popularity using Affective Programming. Extended version in submission to PerCom 2024.

Computer Engineering and Business Management (Dual Degree Program)

Hong Kong University of Science and Technology (HKUST)   *2020/09 – 2021/12*

Courses: Random Process, Signals and Systems, Multivariable Calculus, Matrix Algebra, Case Analysis

Experiences

Interactive Sensing & Computing Lab, University of Michigan, Ann Arbor, US

Research Assistant   *2022/05 – present*

Under guidance of Professor Alanson Sample and graduate student Yang-Hsi Su, worked on a novel system for indoor sensing with Bl6uetooth Low Energy antenna array. Conceptualized and implemented a custom two-dimensional Angle of Arrival measurement algorithm that improved prior work. Proposed and implemented a depth estimation pipeline based on machine learning, creating a 3-dimentional localization pipeline. Designed experiments to evaluate its performances. Submitted the work to IEEE WCNC 2024 as **first author**.

Hong Kong University of Science and Technology, Hong Kong S.A.R.

Undergraduate Research Opportunity (UROP)   *2021/09 – 2022/02*

Under guidance of Professor Kevin Chau from HKUST, worked on a paper for real time improvement of speech intelligibility. Constructed experiment and evaluation pipeline for the novel algorithm on a comprehensive dataset. Co-authored paper can be found here: https://arxiv.org/abs/2202.02545

Applied Sci & Tech Research Institute, Hong Kong S.A.R.

Engineer Intern   *2021/06 – 2021/08*

Worked in Communication Division of Network Software Group, focusing on automated-driving vehicles. Developed a system that could assist vehicles to park automatically. Developed an end-to-end automatic camera calibration pipeline with a senior engineer. Highly recognized by the group management team, and the work was presented to the Hong Kong Government.

Awards

2022-**2023**: University Honors (two times). Awarded by University of Michigan, Ann Arbor for academic excellence.

2021: Dean's List. Awarded by HKUST for academic excellence.

2021: Scholarship Scheme for Continuing Undergraduate Student. Awarded by HKUST for recognition and honor of outstanding academic performance (top 10% of all continuing undergraduates).

Skillset

Programming Languages: C++, C, Matlab, Python, Java, Javascript, R, SQL

Technical Expertise: Wireless Systems, Maching Learning, Computer Vision, Signal Processing, Robotics & Control, Database Developement

Languages: Chinese(Native), English(Fluent)

Extracurriculars

Triathlon: Member of Michigan Triathlon Club. Finisher of 2023 USAT Michigan State Championships, 2023 USA Collegiate National Championships.