Weijun Yuan

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EDUCATION

Bachelor of Science in Physics (International Research Enrichment Track)

2016 to 2020 (expected)

The Hong University of Science and Technology (HKUST) Cumulative Grade Average (CGA): 4.045/4.3 as of 2019-20 Spring

Exchange Student

2019

Columbia University in the City of New York

RESEARCH EXPERIENCE

Research Assistant

2018 to present

Department of Physics, HKUST

- Assistant to Professor Gyu-Boong Jo, building apparatus for cooling Erbium atoms
- Built the ECDL and calculated the optical dipole trap (ODT) parameters
- Helped Ph.D. seniors with coils of magneto-optical trap (MOT) and designing quasi-2D optical dipole trap for Erbium BEC

Research Internship

2019

Department of Physics, Columbia University in the City of New York

- Assistant to Professor Sebastian Will, working on achieving ultracold NaCs molecules
- Worked with Ph.D. seniors on 2D Cesium MOT, building the optics and electronics

Undergraduate Research Opportunities Program

2017-2018

Department of Physics, HKUST

- Assistant to Professor Kwok Yee Michael Wong, working on neural dynamics.
- Used deep neural network to study the information processing in the brain

Preprint

Seo, B., Chen, P., Chen, Z., **Yuan, W.,** Huang, M., Du, S. and Jo, G. *Efficient production of a narrow-line erbium MOT with two-stage slowing*. arXiv:1912.12649 (2019) [preprint]

PRESENTATION

Seo, B., **Yuan, W**., and Jo, G., "A versatile apparatus for quantum simulation with ultracold dipolar Erbium atoms", The 26th International Conference on Atomic Physics (ICAP 2018), Barcelona, Spain, 22-27 July 2018

HONORS AND AWARDS

Renewable Admission Scholarship (four-year full tuition	2016-2020
fee and living allowance), HKUST	

Dean's List, School of Science, HKUST 2017-2019

Innovation and Technology Scholarship, Innovation and Technology Commission of the HKSAR Government, HSBC and The Hong Kong Federation of Youth Groups	2018-2019
School of Science Exchange Scholarship, School of Science, HKUST	2019
Lee Hysan Overseas Scholarship, Lee Hysan Foundation	2019

TECHNICAL COMPETENCY

Python

Used Keras and TensorFlow to build deep neural network

SolidWorks

Designed the coils holders, mirror mounts for specific experiments

CircuitMaker

• Designed PCBs for some basic circuits.

UNIVERSITY AND COMMUNITY SERVICE

Organizer and host of STEM education workshop

2018

The Hong Kong Federation of Youth Groups

• Held three workshops on air cannon to teach primary students about air pressure

Peer Mentoring Program

2017-2018

School of Science, the Hong Kong University of Science and Technology

Mentored freshmen to help them to adapt to university life

Volunteer 2017

The Salvation Army

• Visited the elderly in a nursing home and taught them Chinese calligraphy

Languages

Chinese (Native)

English (fluent)