

QICHEN DONG

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207 Chapel Street, Salford, UK, M3 5PH

EDUCATION

University of Manchester

PhD Student in High Energy Physics

September 2020 - September 2024

Manchester, UK

- Expected September 2024

University of Manchester

Master of Physics

September 2018 - June 2020

Manchester, UK

- First Class Honours
- Overall GPA: 74.4
- Ranked 30th out of 150 students in the final year.

Shandong University

Bachelor of Science in Physics

September 2015 - June 2018

Jinan, CN

- Overall GPA: 83.3

RESEARCH EXPERIENCE

University of Manchester

PhD Project

Sep 2020 - September 2024

Manchester, UK

- Project supervised by Prof. Terry Wyatt.
- Harnessing the power of AI to analyse massive datasets generated by the ATLAS experiments.
- Proposed, developed, implemented, and tested improved methods to identify the highly boosted pair production of the heaviest τ leptons. Algorithm runs in Tier-0 ATLAS data processing system.
- Techniques benchmarked with data, achieving a three- to four-fold improvement in the signal-to-background ratio.
- Leading an analysis searching for resonant production of the Higgs boson pairs in the $b\bar{b}\tau\tau$ channel.
- At least two papers are scheduled to be published for the benefit of the ATLAS collaboration, in which I will be the first author.

ATLAS experiment, CERN

Developer and Maintainer

April 2022 - August 2022

Geneva, CH

- Long-term-attached PhD student.
- Developer and reviewer of the ATLAS offline software.
- Senior shifter in the ATLAS software merge-requests review team.

University of Manchester

Master Project

September 2019 - June 2020

Manchester, UK

- Project supervised by Prof. Andrew Pilkington. Achieved 81%.
- Searching for extra source of CP violation which contributes to the large matter anti-matter asymmetry in the universe.
- The project measured the fiducial cross-section of the Vector Boson Scattering (VBS) processes.
- One of the first to set preliminary limits on the Standard Model Effective Field Theory parameters in VBS processes.
- Results presented to the ATLAS Collaboration.

WORK EXPERIENCE

Qube Research and Technology
Staffed Intern Quantitative Researcher

August 2022 - February 2023
London, UK

- Salaried internship.
- Developing and optimising database infrastructure for real-time financial market data, enhancing data retrieval and storage efficiency.
- Collaborated with a team to address critical NLP-related challenges in the finance industry leveraging AI.

ADDITIONAL EXPERIENCE

University of Manchester
Teaching Assistant

Sep 2020 - Present
Manchester, UK

- Demonstrating the C++ / Python laboratories for year-2 and year-3 undergraduate physics students.
- Sharing fundamental programming skills with the next-gen programmers.

Remote area in Sichuan
Volunteer Primary School Teacher

June 2016 - September 2017
Sichuan, CN

- Helping primary school students who live in remote area in Sichuan province during summer break.
- The team helped hundreds of children.
- Local tobacco farming industry which can potentially reduce poverty in local area was investigated.

Shandong University
Lead of Student Union

September 2015 - June 2017
Jinan, CN

- Responsible for organising voluntary works hosted by the university.
- Managing a team of 20 SU undergraduate representatives.

SKILLS AND INTERESTS

Programming	Proficient in programming with C/C++ and Python
Teamwork	Strong communication skill in highly collaborative environments
Languages	Chinese (Native), English (Professional)
Interests	Graphic design, Accelerated / Distributed computing