

# Fan Kwok Lung

BSc(4) Year 3, The University of Hong Kong  
Double major in Decision Analytics and Physics

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<https://jasonfan1997.github.io/>

## OVERVIEW

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Year 3 BSc student major in Decision Analytics and Physics interest in data science and astrophysics.

## APPOINTMENTS

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### Oversea Research Fellow

05/2018-07/2018

*Department Of Physics, University of Maryland, College Park*

- Gamma/Hadron separation in the High-Altitude Water Cherenkov Observatory(HAWC)
- Supervised by Prof. Jordan Goodman

### Undergraduate Research Assistant

01/2018-02/2018

*Department Of Mathematic, The University of Hong Kong*

- Implement convex optimization algorithm using C++

### Student Teaching Assistant

09/2017-12/2017

*Department Of Computer Science, The University of Hong Kong*

- Teaching COMP2123 Programming Technologies and Tools
- Course content include: shell script, C++ STL, C and python

### Student Intern

07/2017-08/2017

*Nishina center for accelerator based science, RIKEN*

- Nuclear physics and particle detector

### Summer Research Fellow

05/2017-08/2017

*Department of Physics, The University of Hong Kong*

- CMB polarization and probabilistic catalog
- Supervised by Dr Meng Su

## EDUCATION

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BSc, major in Decision Analytics and Physics

09/2015-Current

*The University of Hong Kong*

## RESEARCH PROJECT

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**CMB polarization foreground removal with hydrogen data** 01/2017-08/2017  
*Supervised by Dr Meng Su*

**Probabilistic catalog of Fermi LAT data** 12/2016-Current  
*Supervised by Dr Meng Su*

**Classification of Fermi LAT sources with machine learning** 09/2017-Current  
*Supervised by Dr Stephen Ng and Dr Pablo Saz Parkinson (Directed Studies in Physics)*

**Gamma/Hadron separation in HAWC** 02/2018-Current  
*Supervised by Dr Pablo Saz Parkinson and Dr Philips Yu*  
*Supervised by Prof. Jordan Goodman while in UMD(05/2018-07/2018)*

## HONOR AND AWARD

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**Professor C D Beling Memorial Prize in Physics** 2016

## SKILLS AND LANGUAGES

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### Languages

- *Native speaker of Cantonese and Mandarin*
- *Fluent in English*

### Programming and Software

- *Python(including scientific packages like Numpy,sci-kit learn and keras with tensorflow backend)*
- *C/C++*
- *R(including data visualization packages like ggplot and plotly)*
- *Linux and Shell script(With experience in Slurm and PBS)*
- *Excel(Including Built in statistical function)*
- *Microsoft Offices*
- *LaTeX*

### Skills

- *Data mining and machine learning*
- *Physics and mathematical modeling*
- *Statistic*