Yuxuan Yan

+86159-0110-7492 | yanyx1999@pku.edu.cn

Beijing, CHN

EDUCATION

Peking University   *Sep 2017 - Graduation Date*

Undergraduate Physics School of Physics   *Beijing*

- GPA: 3.604 / 4.0
- Relevant Undergraduate-level Coursework: Theoretical Mechanics (A) (93), Electrodynamics (A) (92), Equilibrium statistical physics (85), Quantum Mechanics (A) (81), Seminar for Quantum Mechanics (92), Computational Physics A (99), Methods of Mathematical Physics (1&2) (89, 96), Probability Theory and Statistics (B) (95.5)
- Graduate-level Coursework: Group Theory, Advanced Quantum Mechanics, Introduction to Quantum Information Physics
- Coursework in Other Domain: Machine Learning in Computer Vision, Machine Learning, Computer Architectures

RESEARCH EXPERIENCE

Machine Learning in Heavy Ions Collisions   *Mar 2019 - Present*

School of Physics, Peking University   *Beijing*

Peking University

Undergraduate research program (Advisor: Prof. Huichao Song)

- Participated in weekly discussion, and gave talks on literature reading as well as work process.
- Tried finding the relation between QGP's initial energy density distribution and hadrons' momentum distribution.
- Now working with our postdoc Dr. Koichi Murase to study the interactions between jets and hydrodynamic flows.

Applying Bayesian Unfloding in Heavy Ions Collisions Experiment   *Jul 2019 - Aug 2020*

Visiting Student , Department of Chemistry, Stony Brook University   *Stony Brook, New York*

Stony Brook University

Summer research intern (Advisor: Prof. Roy Lacey, Prof. Jiangyong Jia)

- Applied Bayesian unfolding on data of heavy ions collisions experiment, in order to eliminate the smearing effects from statistic error.
- Made simplified data converged fast in our unfolding algorithm, coding in C++ and ROOT.
- Studied the behaviors of the unfolding algorithm in detail.
- Besides, read literature on heavy ions physics, and gave reading reports on longitudinal correlations.

MISCELLANEOUS

- **Skills:** Programming (Python, C++, ROOT, Matlab/Octave, Mathematica); data science and machine learning; ploting and scientific writing tools (Latex, matplotlib).
- **Languages:** Chinese (Native), English (Fluent)
- **Activities:** Student Cluster Competition in SC19, 1st CFNS Summer School on QCD at the EIC , 2019 MCM (Mathematical Contest In Modeling)