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* 9 July 2005

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The truth always turns out to be simpler than you thought.

— Richard Feynman

Education

2019–2023 **Senior High School, Beijing Academy**

691/750pts in NCEE.

2023–now **Undergraduate, School of Physics, Peking University**

CGPA 3.831/4.00, MGPA 3.845/4.00 after freshman year, top 15% ranking.

Current Academic Interests

Optics Breakthroughs in understanding the nature of light have always been epoch-making, from the electromagnetic solution of Maxwell's equations to Einstein's photoelectric effect equation, and then to the laser theory and the accompanying new physics. Cutting-edge optics focuses on the properties of light such as extreme intensity, ultrafast speed, and extreme nonlinearity, which greatly fascinate me.

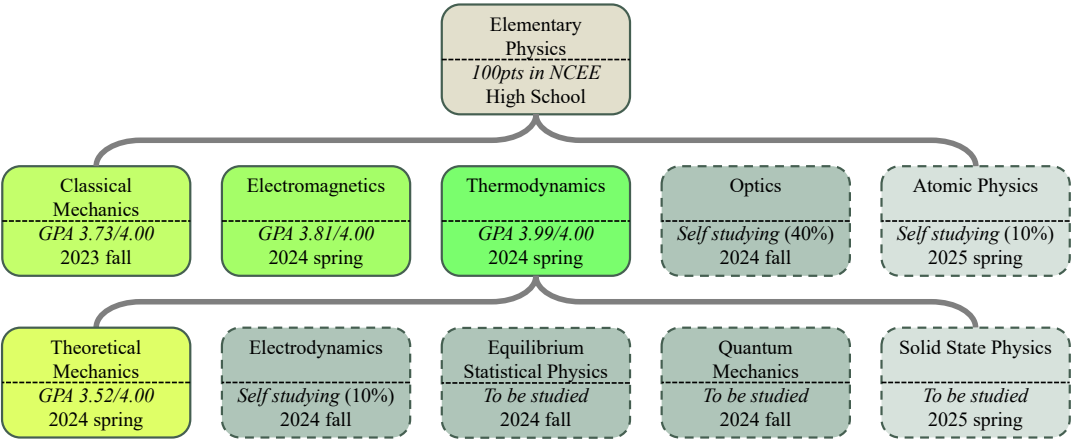
Statistical Physics I have learned about Statistical Physics briefly through the course of thermodynamics. What interests me is the qualitative change from describing Newtonian laws for individual particles to elaborating statistical laws for particle swarm. Moreover, statistical physics transcends phenomenology and theory (e.g. Landau theory) and reveals the peculiar properties of many systems (e.g. BE condensation), provoking lots of new physics.

Life Science × Physics Life science is a fascinating field. Several structures in living organisms is quite astonishing for me. Nowadays, AI is developing rapidly. But in my opinion, a real AI cannot be achieved unless people have sufficient understanding of life sciences. That's why I take a dual degree in biology and I really look forward to achieving results in this field.

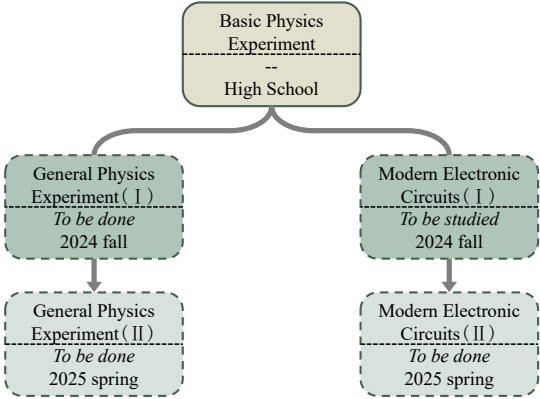


Knowledge Tree

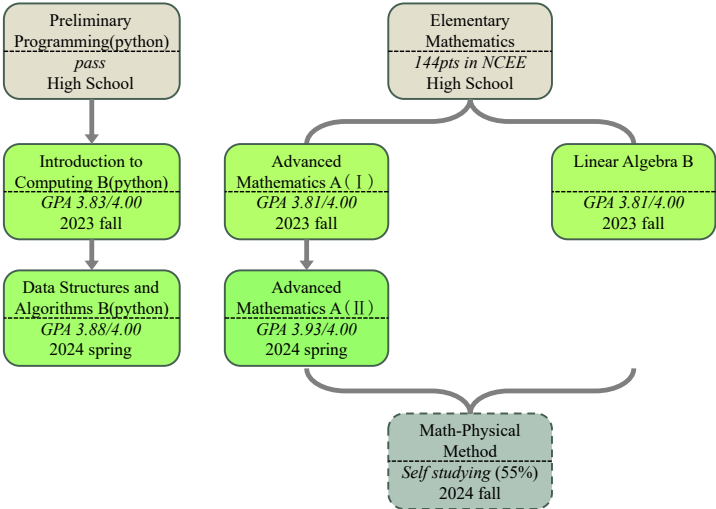
Theoretical Physics



Experimental Physics



Mathematics & Computer Courses



Computing

	Level	Skill	Years	Comment
Language:	■■■■■	Python	2	<i>Compared to traditional algorithm problems, I'm better at using Python to solve projects(e.g.Text sentiment analysis based on Bert, 「Introduction to Computing B」). Also, I can proficiently and beautifully use Python for drawing figures(Matplotlib).</i>
	■■■■■	Matlab	6	<i>In junior high school, I participated in IMMC mathematical modeling competition, during which I learned the basic syntax of Matlab and was able to write programs to implement some algorithms</i>
	■■■■■	L ^A T _E X	5	<i>I have my own L^AT_EX paper and slide template, which allows me to proficiently use L^AT_EX for formatting, tabulating, and presenting formula.</i>
	■■■■■	Mathematica	1	<i>I have a basic understanding of MMA's arithmetic statements. With the help of instructional documents, I can use MMA to assist me in completing calculations, especially when facing complex and difficult homework problems.</i>
OS:	■■■■■	MacOS	5	<i>I mostly use the MacOS system.</i>

English Skill

Transcript 622/710pts in CET4; GPA 3.85/4.00 in 「Advanced English Reading」 course; A total of 134pts in NCEE, including 50/50pts in Listening and Speaking part.

Evaluation My professional vocabulary may be lacking. Thus, I need translation tools and GPT helpers for reading papers. On the other hand, I'm quite confident in my oral English and I can communicate with others fluently.

Academic Activities and Awards

2017–2021 **The International Mathematical Modeling Challenge(IM²C)**

As the captain, I led the team to learn algorithms, programming, and advanced mathematical knowledge on the basis of elementary background (we were junior high school students at beginning), and completed the modeling competition. Although algorithms for mathematical modeling have little to do with physics research, the competition have equipped me with modeling literacy and the ability to solve practical problems. During this process, I also learned to use Matlab for calculations, programming, graphing. By the way, we have to complete a 21 page paper every time we compete, which enhanced my overall academic abilities.

Awards:

Meritorious in 7th IMMC(International Competition);

Finalist in 7th IMMC(China Division);

Meritorious in 6th IMMC(International Competition);

Meritorious in 6th IMMC(China Division).

2023–2024 **CUPT Research Training Competition among Peking University Students**

As the captain, I led a team of 9 classmates and successfully completed 7 experimental problems over the course of more than half a year. I completed the task of Droplet Microscope, which really inspired me for the wonderful optical imaging I observed, as well as a complete scientific research training completed from both theoretical modeling and experimental verification.

Awards:

Second prize in the competition (ranked 2/18 teams);

Best Opponents and Commentators.

2021–2023 **CPhO Contest**

My high school has just been established and lacks competition resources. As the only student in my grade who persisted in physics competitions, I used my spare time to self-study some general physics courses and participated in the 38th and 39th CPhO. Although my grades were average, they improved my physics level. In addition, during the preparation for the competition, I also conducted some general physics experiments.

Awards:

Provincial Second Prize in 38th CPhO;

Provincial First Prize in 39th CPhO.