

Mingjun Gao

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EDUCATION

Shanghai Starriver Bilingual School

2020-2024

High school courses: AP Calculus BC, AP Physics 1, AP Physics 2, AP Seminar, AP Research, AP Physics C Mechanics, AP Physics C E&M, AP English Language and Composition, AP Statistics, AP Chemistry, AP World History, AP Microeconomics, AP Biology, AH American Literature, AH British Literature, AH American Literature, Geography, H Chinese Literature I II III, AH English Composition and Research, Art, PE

Online College-level Courses Taken

Multivariable Calculus	Sept 2023 - present
Harvard Extension School	
Linear Algebra	Sept 2023 -
Georgia Technology @ Edx	
Quantum Mechanics 8.04	Jun 2022-Aug 2022
MIT Open Courseware	
Machine Learning	Mar 2022-Jun 2022
Stanford University @ Coursera	
Ap Chemistry	
Khan Academy	

Learning by-self

Feynman's Physics Lecture

HONORS AND AWARDS

PUPC (Physics Unlimited Premier Competition) Grade 11, Nov 2022

Global Rank 9, China Rank 2, out of 350 players

http://physicsu.org/premier/pupc_2022_results-by-score.pdf

Individual-based physics competition hosted internationally

PUEC (Physics Unlimited Explorer Competition) Grade 11, Apr 2023

Global Rank 5, China Rank 1, out of 38 teams

http://physicsu.org/explorer/2023_Explorer_Scores.pdf

Team-based, collaborative open-ended assignment that takes place every spring

BPHO(British Physics Olympiad)

Grade 11, Nov 2022

Global Gold

CAP (Canadian Association of Physicists High School Prize Exam) Grade 11, April 2023

China Gold	
Physics Bowl D1 Global Rank 38	Grade 10, Mar 2022
Physics Bowl D2 China Gold	Grade 11, Mar 2023
AMC(American Math Competition) Aime Qualifier	Grade 11, Nov 2022
USACO(USA Computing Olympiad) Gold	Grade 11, Mar 2023
Youth Science and Technology Innovation Competition The 3 rd Award	Grade 9, Mar 2021
Basketball Match of Minhang, Shanghai The 2 nd Place	Grade 10, Oct 2021
Basketball Match U15 of SSSA(Shanghai Schools Sports Association) 2020 The 2 nd Place	Grade 9, Nov.
Clubs Fairs The Excellent Club Award to the City Explore Club	Grade 11, 2023

ACTIVITIES

Tutoring at [Schoohouse.world](https://www.schoohouse.world) Nov 2022-present

Tutoring Ap Physics 1, AP Physics C, Physics Competition
Silver tutor qualifier
Moderator of Physics sub-world from Sept of 2023
Member of AI Team from Sept of 2023
70 learners from 16 countries
Held 64 sessions. Tutorred 4616 minutes
3 hours per week

AI Tutor of Physics Project May 2023-Present

I found sometimes the learner cannot get the timely guidance from the tutor due to the time difference, so I'd like to develop a AI tutor system which can help tutoring when the tutor is absent.

Family Responsibilities

Repairing of household goods and home electronics
Repairing the computer charger for the neighbor
Repairing the igniter of the cooker
Repairing the desk lamp
Repairing the mobile phone charger

Hair dressing for myself and family
Cooking for my family
Be good at frying beef steak and frying egg
Help mom for her sports to improve her insomnia

Research Project

Colgate University Grade 11, Mar 2023-Jul 2023
Research concentration on the quantum mechanics
Title of the research paper "Perturbation Theory: Hydrogen and Alkali Atoms in Constant E-Field"

Shanghai Jiaotong University Grade 10-12, Oct 2021-present
Research concentration on the "A Photo-controlled Varistor Based on Bipolar Resistance Effect".
Solve the problem "the copper wire cannot be easily fixed" by clamping the silicon wafer and copper wire between two cleaned glass sheets, so as not to affect laser irradiation and also to fix the sample.
Successfully produced a photo-controlled rheostat with good linearity and high sensitivity

Indepent Research

An auxiliary device for improving respiratory resistance of masks Grade 9, 2021
Basketball shooting scoring system Grade 9, 2020
The Remote Query system for the Queue System in the hospital Grade 7, 2018
A Kind of Replenishing Robot Reflecting Sunlight Grade 6, 2017

Clubs

City Explore Club Grade 10-12, Sep 2021-present
The co-founder of the club
Together with the club members to explore the traditional culture, like the antient buildings, the traditional foods and the Shanghainese.
Together with the club members to communicate by phone with the bosses of the stores in Shanghai to understand their difficulties of the businesses during the convid-19.
To expand the club members from 2 to 16

The Drama Club

To be as the actor, it's interesting.
To discuss the scripts with the members each other
To play as the repairer in the drama "Cut"
When On the stage and the spotlight, I felt from Panic to silent to the enjoy of the process.

Sports

The School Team of Basketball 2014-present
As the point guard to organize the offense and pass the ball to the right player at the

right time.

As the assistant to the coach to for the training and competition, like
To develop the scoring goals system for self-training of the basketball

The School Team of Soccer

2014-presnt

As the midfielder to control the ball on own side, intercept the opponents for the ball,
organize the offence to score goals.

[Tedx @ssbs speaker](#)

Grade 11, 2023

Sharing Topic "the story of nothing" which discuss the "nothing" concept from the
"vacancy" in physics to the nothing in life, nothing is really nothing.

[Further Physics Team](#)

Grade 11, 2023

As a member of the further physics team, I call for 4 members to attend the PUEC
(Physics Unlimited Explorer Competition), which is a team-based, collaborative open-
ended assignment that takes place every spring. we studied together about the
assignment and finally we ranked global 5 and China 1(tie) . This is the 1st time of our
school to take part in the PUPC. We all are interested this competition and I really
appreciate the collaboration from my team members.

[Subject Representative of Physics](#)

Grade 9, 2020-2021

To help teacher to collect and hand out the homework of Physics.

To answer the Physics questions from classmates