

Runchen Li

Stony Brook University - 100 Nicolls Road, Stony Brook, NY 11794, USA.

EDUCATION

Stony Brook University & Anhui University
Bachelor of Science, Physics & Mathematics
GPA: 3.75/4

Expected Degree in June. 2025
Stony Brook, New York, United States

SKILLS AND CERTIFICATIONS

- Can use 'Labview' to design to simulate test, measurement and control applications.
- Can use 'Origin' to analyze, visualize data and draw graphs.
- Can use Sputter and Electron Beam Evaporation technology to grow thin film.
- Can use Transfer Platform to make 2D crystal material stacks.
- Can use the Atomic Force Microscope (AFM) to scan the surface of the atom.
- Can use the Scanning Electron Microscope (SEM) to observe and analyze the nature and behavior of nanomaterials and nanostructures.
- Can lithograph samples: gluing, exposure, development, and etching.
- Can measure samples with cryogenic device and labview program.
- Can use Comsol to simulate physical phenomena.
- Can use Muffle furnace to calcine materials.
- Can use 'Python' to do data analysis and algorithms.
- Can use 'Matlab' to analyze the data and make data visualization.
- Can use 'keil' to code microcontroller hardware program.
- Can use 'NanoScope Analysis' to visualize data and make graphs.
- Can use HTML to build website.

INTERNSHIP EXPERIENCE

Professor XuDu's research group at Stony Brook University

S-226, Physics Building, Stony Brook University

June. 2023 - Now

Stony Brook, New York

- Stacking two-dimensional materials and graphene in different combinations.
- Used Comsol to simulate the effect of stress on the material.
- Used AFM to scan the surface of the atom.
- Used TEM to observe and analyze the nature and behavior of nanoparticles, nanomaterials and nanostructures.
- Lithograph samples: gluing, exposure, development and etching.
- Used measure samples with cryogenic device and labview program.

Professor Xuegang Chen's research group using Labview to complete the magnetoelectric transport program

Laboratory 115, College of Physics and Optoelectronics, Anhui University

November. 2022 - November 2023

Hefei, Anhui, China

- Self-learning Labview software to complete the programming of data acquisition system.

Professor Xuegang Chen's Sputter NCO research group at Anhui University.

Laboratory 115, College of Physics and Optoelectronics, Anhui University

June. 2022 – September. 2022

Hefei, Anhui, China

- Cutting and cleaning silicon wafers.
- Used Sputter to grow NCO thin film.
- Measurement of film properties using a muffle furnace and magnetoelectric transport device.
- Used Origin and NanoScope Analysis to analyze Data.

- Measured samples(NCO) with cryogenic device and labview program.

Research project on home external environment analysis system by Professor Lei Zhang of Anhui University

October. 2021 – May 2023

College of Computer information Science, Anhui University

Heifei, Anhui, China

- Microcontroller circuit and sensor circuit design.
- Used Python to realized Data reception platform design and hardware detection logic coding.
- Real-world experiments and using Origin to analyze data.
- Setting alarm thresholds and prediction algorithm design.

Prof. Xiaoming Zhang's BOA algorithm research group at Anhui University

November. 2022 - January 2024

College of Physical Sciences, Anhui University

Heifei, Anhui, China

- Using Python to Simulate the Distribution of Aquatic Algae Plants.
- Involved in physical analysis and modeling of aquatic algae plants.

RELEVANT EXPERIENCE

Stony Brook Institute at Anhui University :

Director of academic style construction of the league organization

May. 2022- May. 2023

Heifei, Anhui, China

- Use excel sheets to process data and organize learning activities.
- Find resources, contact teachers, arrange academic lectures and various science and technology innovation and research competitions.
- Responsible for the calculus contest questions.

TECHNICAL PROFICIENCY

Language: English (Fluent), Mandarin Chinese (Native)

Software: Overleaf (LaTeX), WPS, Labview, Origin, Matlab, keil, NanoScope Analysis, Pycharm(Python), Adobe Photoshop, Adobe Premiere, Adobe Audition.