Name Name

Research Background: Computational Materials Modeling | Scientific Machine Learning | Spintronics
Research Interests: Scientific Machine Learning | Computational Materials Modeling
YOUR_EMAIL@gmail.com github.com/YOUR_ID

EDUCATION

Lanzhou University **Sep. 2016 – Jun. 2020**
Bachelor of Science in Physics, Honor student *Lanzhou, China*
GPA: 4.11/5.00 | 91.05/100.00 | Ranked 4/227 in Physics | Top 2%
Selected Courses: Advanced Mathematics I (96), Thermodynamics (94), Linear Algebra (98), Advanced Mathematics II (98), Probability Theory (A), Optics (99), Thermodynamics and Statistical Physics (89), Introduction to Artificial Intelligence (A+), Quantum Mechanics (88), Electrodynamics (98), Fundamentals of Electronics (98), Group Theory (96), Solid State Physics (97).

University of California, Los Angeles (UCLA) **Mar. 2019 – Jun. 2019**
UCLA Extension Program *Los Angeles, USA*
GPA: 4.00/4.00
Selected Courses: Computational Physics (A), JAVA Programming (A), Numerical Computing using Python (A).

École Polytechnique Fédérale de Lausanne (EPFL) **Sep. 2020 – Jul. 2022**
Master in Physics *Lausanne, Switzerland*
GPA: 5.42/6.00 | ranking not available
Selected Courses: Quantum Optics and Quantum Information (5.5/6.0), Quantum Physics III (5.0/6.0), Solid State Physics III (5.75/6.00), Solid State Physics IV (6.0/6.0), Atomistic and Quantum Simulations of Materials (5.5/6.0).

ARTICLE & THESIS

[1] Observation of the spin-orbit magnetoresistance in heterostructures **Jun. 2018 – May 2020**
Instructor: *Prof. Xxxx Xxx* *Lanzhou, China*
- Systematically measured the spin Hall magnetoresistance of CoFeB/Pt/MgO, CoFeB/Ta/MgO, CoFeB/Pt and CoFeB/Ta samples
- Confirmed the appearance of the spin-orbit magnetoresistance in CoFeB/Pt/MgO and CoFeB/Ta/MgO by comparing samples with/without the oxide layer
- Proposed appropriate boundary conditions to solve the spin diffusion equation and theoretically explained the appearance of the double-peak phenomenon in magnetoresistance measurements
- Article available at arxiv.org/abs/xxxx.xxxxx. I am the first author.

[2] Machine learning of the dispersion interaction in phosphorus **Mar. 2022 – Jul. 2022**
Instructor: *Prof. Xxxx Xxxx* *Lausanne, Switzerland*
- Implemented necessary utility python functions for *pyLODE* and *equistore*
- Successfully captured the dispersion behavior of the exfoliation of phosphorene using a machine learning model
- Compared the capabilities of an analytical model and a machine learning model on learning the dispersion interaction in phosphorus
- Thesis available at github.com/xxxxxx-xx/Xxxxxxx. Conference poster at Psi-k 2022. Paper in preparation.

RESEARCH PRACTICES

[1] Simulation of InAs nanowires grown on GaAs nanomembranes **Sep. 2020 – Jan. 2021**
Instructor: *Prof. Xxxx Xxxx* *Lausanne, Switzerland*
- Coded the generator of alloy concentration data for $In_xGa_{1-x}As$
- Systematically simulated the strain, bandgap and electron density of samples with changing $In_xGa_{1-x}As$ thickness and changing geometry of InAs separately
- Project report available clicking here.

[2] Construction of neural-network potential for graphene **Mar. 2021 – Jun. 2021**
Instructor: *Prof. Xxxx Xxxx* *Lausanne, Switzerland*
- Constructed the training set for bilayer graphene
- Trained a machine learning model for graphene using DeePMD-kit
- Project report available clicking here.

[3] Learning of dispersion-dominated data **Sep. 2021 – Jan. 2022**

Instructor: *Prof. Xxxx Xxxx* *Lausanne, Switzerland*

- Coded the general baseline calculator
- Constructed a machine learning model for phosphorus comparable to the accuracy of published papers using *librascal*
- Compared the performance of the models with/without the long-range model
- Project report available clicking here.

AWARDS

National Scholarship **Nov. 2017**
Hong Kong PhD Fellowship Scheme (HKPFS) at HKUST | declined **Apr. 2020**
Excellent Graduation Thesis **Jun. 2020**
Chinese Mathematical Olympiad | First Prize in Jiangsu Province **Sep. 2015**
Chinese Chemistry Olympiad | First Prize in Jiangsu Province **Oct. 2015**
The Scientific Research and Innovation Scholarship | First Prize **Dec. 2018**
Honor Title – Student Pacesetter of Lanzhou University **Dec. 2018**
National English Speech Competition for College Students | Bronze Medal **Aug. 2017**
National English Competition for College Students | Special Prize **May 2018**
Excellent Student Scholarship in Lanzhou University | Third Prize **Dec. 2018**

SKILLS

Programming: Python, PyTorch, LaTeX
Frameworks: Linux, GitHub, HPC Clusters
Scientific Software: OriginLab, OVITO, Igor, NextNano3, VASP, LAMMPS, VESTA, DeePMD-kit, DP-GEN, MStudio

STANDARDIZED TESTS

TOEFL iBT ***(110)*** **17th Oct. 2022**
- Reading: 30/30
- Listening: 26/30
- Speaking: 25/30
- Writing: 29/30

GRE General ***(331 + 4.0)*** **8th Oct. 2022**
- Verbal R.: 161/170
- Quantitative R.: 170/170
- A.W.: 4.0/6.0

LEADERSHIP / EXTRACURRICULAR

EPFL Chinese Students & Scholars Association **Oct. 2020 – Sep. 2022**
Vice President *EPFL*

Amateur Musician **Oct. 2020 – present**
Artist Name: Xxxx *Netease Music*

Cuiying Honors College Leadership **Sep. 2017 – Jul. 2018**
Leader of Physics Cuiying Class *Lanzhou University*

Cuiying Memory Project **Jan. 2018 – Jan. 2019**
Volunteer *Lanzhou University*