# Jingjing Lin

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## EDUCATION

**Princeton University**, Princeton, NJ — Sep 2014 – June 2020 (Expected)
- PhD candidate, Department of Physics
- Advisor: Prof. Nai Phuan Ong

**University of Science and Technology of China (USTC)**, Hefei, China — Sep 2010 – June 2014
- Overall GPA: 3.79
- Outstanding Student Scholarship in all three years
- B.S. in Applied Physics

## WORK EXPERIENCE

**Siuvo Inc.,** Princeton, NJ — June 2019 – July 2019
*Research and Development, Summer Internship*
- Work on Optical Character Recognition (OCR) with open source engine Tesseract. Write Python programs to postprocess OCR results, extract values, and calculate their confidence levels for medical lab test reports. To be utilized by the team in production to automate the process of lab test report digitization.
- Image processing with ImageMagick, OpenCV-Python to enhance text in an image and improve Tesseract accuracy.
- Retrain Deep Learning neural networks in Tesseract to recognize characters it cannot recognize originally.
- Work on DeepPose project to recognize human skeleton joint positions. Follow a Github repository to train the model using the Tensorflow Deep Learning framework with GPU acceleration.
- Setup Swagger REST API Interface for my projects with Flask and Flask-RESTPlus.

**Department of Physics,** Princeton University — Jan 2015 – Present
*Research Assistant*
- Carry out independent research projects. Coauthor of 8 peer review papers.
- Perform data analysis with OriginLab and MATLAB, using methods such as interpolation, non-linear curve fitting and Fast Fourier Transform. Discover a novel method to more effectively process experimental data.
- Write Python programs to communicate with lab equipment and optimize workflow.

## PUBLICATIONS

- Anomalous Hall Effect in ZrTe5, 2018, *Nature Physics*
- Anomalous Nernst Effect in the Dirac Semimetal $Cd_3As_2$, 2017, *Phys. Rev. Lett.*
- A pressure-induced topological phase with large Berry curvature in $Pb_{1-x}Sn_xTe$, 2017, *Science Advances*
- Experimental Tests of the Chiral Anomaly Magnetoresistance in the Dirac-Weyl Semimetals $Na_3Bi$ and GdPtBi, 2018, *Phys. Rev. X*
- Phase diagram and physical properties of $NaFe_{1-x}Cu_xAs$ single crystals, 2013, *Phys. Rev. B*
- Sn-doped $Bi_{1.1}Sb_{0.9}Te_2S$ bulk crystal topological insulator with excellent properties, 2016, *Nature Communication*
- $TaRh_2B_2$ and $NbRh_2B_2$: Superconductors with a chiral noncentrosymmetric crystal structure, 2018, *Science Advances*

## LEADERSHIP EXPERIENCE

Vice President of Chinese Calligraphy Association, Undergraduate

## SKILLS /LANGUAGES/INTERESTS

- Proficient with Python, UNIX/LINUX. Familiar with Java, Git, Matlab and C.
- Experience with Python data science packages such as pandas, numpy, scikit-learn and Jupyter.
- Bilingual in Chinese and English.