

Rex Lam

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EXPERIENCE

University of Minnesota, Minnesota — *Optics Researcher*

APRIL 2023 - PRESENT

- **Analyzed the transmissivity and reflectivity optical properties of 3D-printed alumina** to be used as an original alternative to conventional filters and lenses in telescopes
- Developed extensive Code to **program and automate a triple axis linear stage system and laser scanner**
- **Managed a 2000 sq ft lab** with duties ranging from purchasing, inventory, safety, plumbing, and electrical.

San Diego State University, San Diego — *Research Associate*

OCT 2019 - APRIL 2023

- **Published a paper** of my research as the first author:
<https://iopscience.iop.org/article/10.3847/1538-3881/acdddb>
- **Conducted orbital modeling** for a rare complex binary star system
- **Analyzed tens of thousands of data points** to create evolutionary tracks and isochrone fits to understand a system's orbital mechanics

University of Hong Kong, Hong Kong — *Research Assistant*

OCT 2016 - JUN 2018

- Conducted Extensive Galaxy **modeling of 2D light profiles** of galaxy clusters
- **Utilized Monte Carlo Markov Chain (MCMC) Simulations** to fit for spectral types of galaxies

EDUCATION

San Diego State University, San Diego — *Masters in Astronomy*

AUG 2019 - MAY 2022

University of California, San Diego — *Bachelors in Physics*

OCT 2016 - JUN 2018

SKILLS

Python, IDL, Fortran

Machine Learning, AI,
TensorFlow

Solidworks, CAD

LaTeX, Unix

CERTIFICATIONS/GROUPS

Data Science in

Multi-Messenger

Astronomy - **University of Minnesota**

Machine Learning -
Coursera

LANGUAGES

English, Cantonese,
Mandarin

REFERENCES

Available upon request