

# Jeremy Lu

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## Experience

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**Data Analyst**, NYU Langone Health – New York, NY May 2023 – Present

- Redesigned best practice alert to fire 0.6 times less per patient encounter, reducing provider alert fatigue while maintaining current standards of care
- Identified shortcomings of kiosk check in system using data from over a million sessions and made recommendations increasing kiosk success rate by 15 percent
- Built gravity model using six years of historical data totaling over a million emergency department visits to evaluate catchment area and inform patient capacity and recruitment decision making

**Teaching Assistant**, NYU Department of Applied Statistics – New York, NY Sept 2022 – Dec 2022

- Teaching lab section with live coding demonstrations for Practicum in Applied Statistics: Statistical Computing
- Help design syllabus, optimize student experience, and grade submitted assignments and projects

**AI Research Intern**, Aizip, Inc. – Cupertino, CA June 2022 – Aug 2022

- Automated process for deploying imagenet-based PyTorch Convolutional and Recurrent Neural Networks on hardware
- Managed 3 undergraduate interns to collect, label, and organize visual and audio data for multiple TinyML neural networks

**Research Assistant**, UW Department of Atmospheric Sciences – Seattle, WA Sept 2019 – Jun 2021

- Performed exploratory analysis on over 140,000 particles from Southern Ocean Clouds, Radiation, Aerosol Transport Experimental Study (SOCRATES) probe data using matplotlib, numpy, and xarray
- Used Scikit-Learn to build and optimize a binary random forest classifier, distinguishing over 5 million liquid and ice cloud particles with 95% accuracy, a 20% increase from previous non-ML methods

## Education

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**New York University**, M.S. in Applied Statistics for Social Science Research Sept 2021 – May 2023

**University of Washington - Seattle**, B.S. in Applied and Computational Mathematical Sciences (Data Science Concentration) Sept 2018 – Jun 2021

## Publications

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**The University of Washington Ice-Liquid Discriminator (UWILD) improves single-particle phase classifications of hydrometeors within Southern Ocean clouds using machine learning** Nov 2021

Rachel Atlas, Johannes Mohrmann, Joseph Finlon, *Jeremy Lu*, Ian Hsiao, Robert Wood, Minghui Dao  
10.5194/amt-14-7079-2021

## Technologies

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**Languages:** Python (pandas, matplotlib, plotly, numpy, scikit-learn, seaborn, pytorch, onnx, flask), R (base, tidyverse, ggplot, Shiny, glm, stan, bartcause), Java, HTML, CSS, SQL, SQLite

**Software:** Microsoft Office, LaTeX, Adobe Acrobat, Tableau, Epic SlicerDicer