

# Alex Chen

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## Education

### University of California Los Angeles

3RD YEAR PHD STUDENT IN STATISTICS

GPA: 4.0/4.0

Los Angeles, California  
Expected Graduation  
Date: June 2025

### The Pennsylvania State University

DOUBLE MAJOR IN STATISTICAL DATA SCIENCE AND APPLIED STATISTICS

DOUBLE MINOR IN MATH AND KOREAN

Overall GPA: 3.83/4.0

Dean's List: 2017, 2018, 2019, 2020

University Park,  
Pennsylvania  
Graduation Date: May  
2020

## Skills

<b>Programming</b>	Python, R, SQL, SAS, Java
<b>Statistical Techniques</b>	Causal Inference, Machine Learning, Computer Vision, Deep Learning, Data Visualization Data Management, Database Design, Web Scraping
<b>Notable Graduate Classes Taken</b>	Large Sample Theory, Machine Learning, Monte-Carlo Optimization Theoretical Statistics, Modeling and Learning, Matrix Optimization

## Industrial Internship Experience

### Data Science Internship

MACHINE LEARNING AND IOT INTERNSHIP AT LOCKHEED MARTIN

Denver, Colorado  
May 2019 - Aug. 2019

- Self-taught Causal Inference through R to accelerate identification sources of autoclave fault
- Performed fault detection to do predictive maintenance through R and Python on large machinery to minimize downtime

### Data Science Internship

GENIE AERIAL WORK PLATFORMS

Redmond, Washington  
June 2021 - Sept. 2021

- Created dashboards for data analytics through Amazon Quicksight and use of Amazon Redshift to live-track potential machine faults from sensor data
- Identified new machine usage metrics for additional business insights on how customers use products
- Used SQL to continuously pull and merge data from AWS databases for live dashboards

## Research Experiences

### PhD Research

UCLA CAUSALITY GAUSSIAN DAGS FROM NETWORK DATA WITH DR. QING ZHOU

Los Angeles, California  
June 2021 - Present

- NSF funded research on causal inference estimation of Gaussian graphs involving discrete network data
- Developing algorithms to improve estimation and structure accuracy over current causal inference methods

### Penn State Undergraduate Statistics Researcher

PENN STATE EBERLY COLLEGE OF SCIENCE WITH DR. LINGZHOU XUE

University Park,  
Pennsylvania  
Jun. 2018 - May 2020

- Collaborated with bioinformaticians on Hi-C Gene expression data using Lasso on high-dimensional data to identify and differentiate between distinctive chromatin for normal and cancer cells. Hi-C analysis costs 1000s of dollars. Model can be used estimate interaction intensity between chromosomes as a decent substitute for costly analysis
- Compared classification methods using semi-supervised learning for sentiment analysis of Amazon Review Text

## Honors & Awards

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|------|--|
| 2019 | <b>Patil-Taillie Award</b> , Awarded to one undergraduate student annually who has demonstrated forethought and application of the use of statistics in the study of the environment. Published research on significant changes in chemical pollutants and spills within Pennsylvania water networks |
| 2018 | <b>PSU DataFest</b> , Won 1st Overall and awarded Best Insight in the annual DataFest Competition using Indeed data to discover profitable professions based on cost of living in the United States. Used Tableau for data visualization using outside data sources.                                 |
| 2019 | <b>PSU DataFest</b> , Won Best Insight in the annual DataFest Competition using movement data for rugby teams to determine effectiveness of self-reporting mental and health state   |