

# ZHENG ZHANG

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## EDUCATION

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### **The Pennsylvania State University**

*Aug 2016 - May 2020*

B.S. in Statistics & Data Sciences

Concentration: Computational Statistics, Statistical Modeling Data Sciences

Minor in Computer Science & Mathematics

Member of Mu Sigma Rho - National Honorary Society for Statistics

Overall GPA: 3.70/4.00

## HONORS AND AWARDS

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### **ECoS Summer Undergraduate Research Scholarship**

April 2019

*Scholarship for Conducting Research During Summer*

*State College, PA*

### **DataFest**

April 2019

*Finalists & Best Visualization Award*

*State College, PA*

### **HackPSU**

October 2018

*Second Place in AccuWeather Challenge*

*State College, PA*

### **Penn State Behrend Honor Student**

April 2018

*Honor Student Award*

*Erie, PA*

## RESEARCH EXPERIENCE

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### **Research Assistant**

Sept 2019 - Present

*The Mahony Lab, Center for Eukaryotic Gene Regulation*

*State College, PA*

- Developed algorithms and model for predicting the signal of biochemical activities in human genome.
- Utilized Spark and HDFS to provide the solutions for handling over 4 TBs massive datasets.
- Developed parallel applications for data pre-processing and post-processing.
- Link to Research: <https://secantzhang.github.io/project/encode-imputation>

### **Bioinformatics Programmer**

May 2019 - Aug 2019

*The Mahony Lab, Center for Eukaryotic Gene Regulation*

*State College, PA*

- Participated in the "Encode Imputation" challenge hosted by Stanford University.
- Developed high-performance parallel algorithms and the data processing pipeline to model the massive datasets.

## PROFESSIONAL EXPERIENCE

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### **Teaching Assistant**

Aug 2019 - Present

*CMPSC 410 - Programming Model for Big Data*

*State College, PA*

- Assisted Dr. Daniel Kifer with the grading of the students' homeworks and labs in CMPSC 410 class.

### **Entry Analyst Intern**

Jun 2017 - Sep 2017

*Beijing JAYA Technology*

*Beijing, China*

- Crawled and collected the public-available financial data published on over five companies' annual report.

- Visualized and analyzed the data extensively using R and Python.

## PROJECTS

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### **rmodel2tex**

*R*

Dec 2018 - Present

*State College, PA*

- R package for easily converting various existing r model to latex code.
- Supported various statistical models such as linear regression and logistic regression.
- Took into consideration of the difference between population model and fitted model. Also supported the different representation of interaction and categorical terms.
- Link to Project: <https://secantzhang.github.io/project/rmodel2tex>

### **A-weather**

*Swift*

Oct 2018

*State College, PA*

- Developed an AR iOS application using AccuWeather API on HackPSU Fall 2018.
- Integrated Augmented Reality within the application so that the disables could sense the weather condition visually without the need of going outside.
- Link to Project: <https://secantzhang.github.io/project/a-weather>

## TECHNICAL STRENGTHS

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### **Computer Languages**

Python, R, Scala, Swift, C++, JAVA, SAS, Shell Script

### **Databases**

MySQL, MongoDB

### **Data Analysis & Processing**

Spark, Hadoop, HDFS, Scikit-Learn, ggplot, Tidyverse, HDF5

## COURSEWORK

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### **CMPSC 465**

*Data Structures and Algorithms*

Summer 2019

*A*

### **STAT 440**

*Computational Statistics*

Spring 2019

*A*

### **CMPSC 410**

*Programming Models for Big Data*

Spring 2019

*A*

### **STAT 462**

*Applied Regression Analysis*

Fall 2018

*A-*