

# Andrew B. Alsup

## Education

### Georgia Tech Professional Education

Expected Aug 2024

Online Masters of Science in Analytics – Analytical Tools Track

3.80 GPA

### Georgia Tech College of Sciences

Graduated Dec 2020

Major in Mathematics – Concentration in Probability and Statistics

Dean's List 2016-2020

### Cultural Experiences Abroad

June 2018 – Aug 2018

Studied Spanish and Photography in Barcelona

## Projects

### Mountain Project Web Scraper and Text Analysis

Aug 2022 – Today

Scraped route and area data from mountainproject.com with Beautiful Soup and Selenium into a MySQL database. Assign tags with natural language processing.

### Homeownership Rate Time Series Analysis

Aug 2022 – Dec 2022

Group project. Checked if economic variables could help predict an anomalous spike in homeownership rate. Compared the prediction performance of various time series models.

### Heat Wave Research

Aug 2019 – Dec 2019

Gathered and cleaned weather data. Calculated nationwide daily heat index from 1979 to 2019. Generated plots to identify areas at risk to heat waves.

### WxChallenge Competitor

Aug 2018 – May 2020

Created and maintained a regression model to forecast the weather at given city. Placed 2<sup>nd</sup> for junior and senior undergraduates and 9<sup>th</sup> overall out of 1,300 contestants.

### Weather Model Comparison

May 2019

Compared the prediction performance of two numerical models (NAM and GFS) in Georgia.

## Skills

### Data Analysis

Data Scraping, Data Preparation, Data Visualization, Scalable Computing, Classification, Regression, Time-Series Models, Probability Models, Optimization, Simulation, Tree-based Models, Change Detection, Design of Experiments, Text Analysis, Business Analytics

### Data Tools

Python, R, SQL, Git, Tableau, Apache Spark, HTML, JavaScript, D3, Java, MATLAB

### Mathematics

Probabilities, Information Theory, Numerical Analysis, Mathematical Proofs, Combinatorics, Multivariable Calculus, Linear Algebra, Complex Analysis, Partial Differential Equations

### Miscellaneous

Microsoft Office, Giving Presentations, Micro Economics, Synoptic Meteorology

## Work Experience

### Cashier/Waiter at Wildflour in Alpharetta, GA

June 2016 – Aug 2016

Switched between working the register and serving customers depending on the demands.

## Extracurricular

### Rock Climbing

Taught club members the skills to safely lead climb outdoors. Systematically helped club members overcome fear of falling. Lead club workouts and organized climbing trips.

### Aviation

Certified private pilot. Can communicate effectively at the 2<sup>nd</sup> busiest airport in Georgia.