

# JOHN WASHBURN

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## EDUCATION

### Georgia Institute of Technology

BS Computer Science | GPA: 4.0 | 82 Credit Hours Completed

- Concentrations in Intelligence and Modeling/Simulation

Atlanta, GA

August 2020 - May 2023

### Clemson University Honors College (Transferred)

BS Computer Science | GPA: 4.0 | President's List

Clemson, SC

August 2019 - May 2020

## EXPERIENCE

### National Institute of Standards and Technology (NIST)

Software Engineering Intern | Atomic Spectroscopy Group

- Developed an automated calibration procedure for the Electron Beam Ion Trap instrument
- Extensively used NumPy and SciPy as well as statistical concepts of error, uncertainty, and chi-square goodness of fit to achieve a high level of precision and accuracy in the calibration
- Produced research-quality calibrations for use in scientific publications. (Pending Publication and Co-Authorship)

Gaithersburg, MA (Remote)

May 2020 - August 2020

### Momentum Management

IT Intern

- Assisted with the implementation of a new management information system.
- Wrote Python scripts to automate data entry roles, scrape convention center data, and categorize cities by geographic location.

Alpharetta, GA

June 2019 - August 2019

### Axis Group

Data Science Intern

- Learned various statistical and machine learning methods for interpreting data using SciKit-Learn and Pandas in Python
- Audited training courses and presented a review for upper management team on the quality of each course.

Atlanta, GA

January 2019

## SKILLS

**Programming Languages** Python, Java, C++, C, HTML, CSS, JavaScript

**Software Frameworks** Node, MongoDB, Express, React, Typescript, Flask, Django, AWS, Google Cloud Products

**Data Science + ML** NumPy, SciPy, Pandas, Matplotlib, Web Scraping, TensorFlow, SciKit-Learn

**CS Concepts** Object-Oriented Design, Data Structures, Algorithms, RESTful APIs, Unit Testing

**Software Design Patterns** Decorators, Template Hook Pattern, Model View Controller, Observer Pattern, Factory Method Pattern

**Mathematics** Discrete Mathematics, Probability and Statistics, Multi-Variable Calculus, Linear Algebra

## AWARDS

- Best Use of MongoDB - Hacklytics 2020 (Atlanta, GA)
- Runner-Up: Equity Category - HackSC 2020 (Los Angeles, CA)
- Finalist - VandyHacks 2019 (Nashville, TN)
- Best WebDevHack - CUhackit HelloWorld 2019 (Clemson, SC)

## LEADERSHIP

### HackGT

Tech Team Developer

- Selected through competitive application process to develop software tools for GT's flagship hackathon group, a 501(c)(3) non-profit that throws events for upwards of 1000 participants annually.

Atlanta, GA

December 2020-

### CUhackit

Tech Director

- Lead a sub-team of developers to organize the annual hackathon hosted by Clemson in January.
- Responsibilities include development of cuhack.it and participant check-in systems to manage/display data of 250+ participants

Clemson, SC

December 2019-May 2020

### Georgia Tech Lacrosse Club

- Practice for 2 hours a day, 3 days a week and play a national schedule every spring

August 2020-

## PROJECTS

### Lead Dog | Intelligent Instagram Analysis

Winner: Best Use of MongoDB @ Hacklytics 2020

- Accessed Instagram's private API to scrape mass amounts of user data
- Created a support vector machine classifier to determine if a particular account is likely to follow the user back
- Generated web crawlers to manage the automatic following/unfollowing of users that are deemed most likely to follow back

### Kuratorio | Legal Document Translation

Runner-Up: Equity @ HackSC 2020

- Designed a web app in Flask for converting PDF immigration forms to accessible web forms, available in any language supported by the Google translate API
- Utilized Amazon Textract for pulling text and coordinates from legal documents