

# 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

Gaithersburg, MA (Remote)

May 2020 - August 2020

- 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)

### Momentum Management

IT Intern

Alpharetta, GA

June 2019 - August 2019

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

### Axis Group

Data Science Intern

Atlanta, GA

January 2019

- 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.

## SKILLS

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

**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

**Communication** Technical Reports, Presentations, Microsoft Office, Adobe Creative Suite

## 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)
- US Lacrosse Academic All-American 2019

## LEADERSHIP

### HackGT

Tech Team Developer

Atlanta, GA

December 2020-

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

### CUhackit

Tech Director

Clemson, SC

December 2019-May 2020

- 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

### Georgia Tech Lacrosse Club

August 2020-

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

### Clemson Crew Rowing

September 2019-May 2020

- Practiced for 2 hours a day, 5 days a week and competed against other universities across the southeast

### Team Captain

September 2017-May 2019

- Two-year team captain for my high school cross country and lacrosse teams

## PROJECTS

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### **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