# JOHN WASHBURNE

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**EDUCATION** 

Georgia Institute of Technology Atlanta, GA

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

• Concentrations in Intelligence and Modeling/Simulation

Clemson University Honors College (Transferred)

BS Computer Science | GPA: 4.0 | President's List August 2019 - May 2020

**EXPERIENCE** 

National Institute of Standards and Technology (NIST)

Gaithersburg, MA (Remote)

Software Engineering Intern | Atomic Spectroscopy Group

May 2020 - August 2020

August 2020 - May 2023

Clemson, SC

- 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 Alpharetta, GA

IT Intern June 2019 - August 2019

- 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.

**Axis Group** Atlanta, GA Data Science Intern 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

## **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** Atlanta, GA

Tech Team Developer

December 2020-

December 2019-May 2020

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

**CUhackit** Clemson, SC

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 and play a national schedule every spring

#### **PROJECTS**

Tech Director

### Lead Dog | Intelligent Instagram Analysis

- Winner: Best Use of MongoDB @ Hacklytics 2020
- Accessed Intagram'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

#### **Kuratoro | 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