

# James Rumsey

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## EDUCATION

### Duke University

Class of 2021  
B.S. Computer Science  
& Statistical Science  
GPA 3.78

### Garden City High School (Garden City, NY)

Class of 2017

## SKILLS

### Programming

Python, Java, JavaScript, R,  
SQL, HTML/CSS, C (basic  
knowledge)

### Tools & Technologies

Git, Cloud (IBM  
Cloud/Bluemix), Postgres,  
NoSQL, Agile Methodology

## RELEVANT

### COURSEWORK

- Data Structures & Algorithms
- Database Systems
- Computer Architecture
- Discrete Mathematics
- Design & Analysis of Algorithms
- Machine Learning
- Probability
- Mathematical Statistics
- Regression Analysis
- Calculus & Linear Algebra
- Intro to Data Science

## WORK EXPERIENCE

### IBM – Software Developer Intern (Chief Information Office)

May 2019 – Present | Research Triangle Park, NC

- Implementing an IoT solution for monitoring occupancy of phone and conference rooms in IBM workspaces
- Developing a dashboard displaying room occupancy to the user and a REST API that interfaces with IBM's Watson IoT Platform and a NoSQL database to collect and report sensor data in real time (Vue.js, Node.js, CouchDB)
- Piloting solution at the Research Triangle Park campus and continuing with project part-time during the Fall 2019 semester

### Duke University – Computer Science Peer Tutor & Team Tutor

August 2018 – Present | Duke University

- Conducting three weekly group tutorials for students enrolled in Duke's Data Structures & Algorithms course (CS 201) while developing weekly lesson plans following course curriculum
- Managing a team of 10 – 15 tutors, serving as a point of contact between professors and the Peer Tutoring Program leadership team

## PROJECTS

### Thyroid Cancer Pathology with Deep Learning

January 2019 – May 2019 | Duke University

- Research project on improving thyroid cell malignancy prediction with convolutional neural networks (CNNs), using a dataset of regions of interest extracted from 900+ thyroid scans from the Duke Health System
- Implemented CNN using PyTorch and data analysis libraries such as pandas and NumPy, used various image resolutions with goal of determining the most computationally efficient resolution for training and testing

### Duke Research Hub <https://bit.ly/2SDyZmR>

September 2018 – December 2018 | Duke University

- Web application meant to connect undergraduates to research opportunities at Duke
- Designed schema for a PostgreSQL database populated by web-scraped faculty listings and sample project data, developed REST API and object-relational mapper using Python Flask, and contributed to front-end development in React.js while working on a team of 5 Duke students

## COMMUNITY EXPERIENCE

### Math and Literacy Tutor – America Reads America Counts at Duke

January 2018 – December 2018 | Durham, NC

- Tutored elementary school students requiring additional support in reading and math at Carter Community Charter School

### Eagle Scout Service Project – Friends of Hempstead Plains Preserve

Spring 2016 – Fall 2016 | Garden City, NY

- Designed, constructed and installed fencing and educational signs at the Friends of Hempstead Plains organization's Education and Research Center to earn Scouting's highest rank, coordinated a team of 20+ volunteers and fundraised \$1100+ to fund the project through a bake sale