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

*Planned Fall 2019

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

August 2018 – Present | Duke University

- Conducting three weekly group tutorials for students enrolled in Duke's Data Structures & Algorithms course (CS 201)
- Developing weekly lesson plans following course curriculum, reinforcing key CS concepts to help students succeed on exams and assignment

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