

# Matthew Lawhon

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## Education

Expected  
April 2021

**Columbia College, Columbia University**, New York, NY  
Bachelor of Arts in Mathematics, Concentration in Computer Science

- GPA: 3.72/4.00

Expected  
December 2021

**Graduate School of Engineering, Columbia University**, New York, NY  
Master of Science in Computer Science, Machine Learning

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## Experience

June 2019 -  
Present

**Software Developer Intern at IBM Z**, Durham, NC

- Developed TensorFlow codebase to real time ingest mainframe system logs with 1M+ messages per day and detect anomalous sequences
- Extended Watson-based SIEM web app to accommodate Splunk ML
- Expanded Machine Learning anomaly prediction routines in Splunk ML

### *IBM Hackathon Projects*

- Developed BlueMaps, an app employing Watson image processing on floorplans to provide an interactive office map deployed on IBM cloud
- Developed WatsonTA, an app employing Watson Discovery NLP and Assistant to serve a teacher-programmable chatbot to students

May 2018 -  
December 2018

**Research Assistant at Columbia University**, Palisades, NY

- Designed neural networks in Python for high accuracy wind prediction on 50M+ length data sets
- Cleaned 50M+ length data sets and created interpretive graphs for publishing results at the 2018 American Geophysical Union Conference

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## Extracurricular

March 2018 -  
Present

**Columbia Outdoor Orientation Program Leader**, New York, NY

- Led groups of six first year students on a week-long backpacking trip
- Managed logistic elements of trips like water and food supply, navigation, gear maintenance

August 2018 -  
Present

**TA for Calculus I and Number Theory and Cryptography**, New York, NY

- Led recitation sections, held office hours, graded homework assignments

August 2015 -  
May 2017

**Lead Researcher at Tools for Change**, Port Chester, NY

- Researched public policy with Duke Sociology Professor William Tobin
- Led presentation of results to public officials and community members

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## Skills

Python (Machine Learning, Data Science, Climate Modeling), Java (Efficient Algorithms), C/C++, JavaScript (D3), HTML/CSS, Git, Linux, Scaled Agile Framework

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## Activities

Backpacking, Bartender at Columbia Bartending Agency, Banjo/Ukulele, Beekeeper at the Cathedral of St. John the Divine, Bonsai, Boulderling, Guitar teacher at Musical Mentors Collaborative nonprofit, Jazz/Blues Guitar, Pottery, Sailing, Woodworking