

208 Williams St
Ithaca, NY 14850
(+91) 9820208300

Kabir Walia
[kabirwalia8300.github.io](https://github.com/kabirwalia8300)

github.com/kabirwalia8300
linkedin.com/in/kabirwalia
ksw63@cornell.edu

Education

Cornell University – GPA: 3.68/4.00 (Dean's List)

Aug 2018 – May 2022, Ithaca, NY

College of Engineering – B.S Computer Science with a minor in Operations Research and Management Science

Relevant Coursework – Machine Learning for Intelligent Systems, Computer Vision, Analysis of Algorithms, Computer System Organization, Probability and Statistics, Networks, Data Structures, Discrete Structures, Applications of Operations Research

Professional Experience

Amazon – Research Engineer Intern

June 2020 – Present, Bangalore, India

Amazon India Machine Learning team

- Owned development and integration of an automated data labeling workflow (Active Learning) into an internal AutoML tool used by 120+ non-technical business teams at Amazon globally
- Decreased costs of labeling data for text-classification tasks by over 65% while maintaining 0.95 precision and recall metrics
- Built an interactive UI for facilitating the labeling task using Streamlit and AWS technologies like SageMaker and Lambda

Cornell NLP Group – Research Lead

Sept 2019 – Present, Ithaca, NY

Managed a team of 4 undergraduate researchers in Prof. Claire Cardie's natural language processing lab

- Explored transformer and attention-based generative neural network methods for the counterargument generation task
- Developing a novel architecture leveraging the recurrence mechanism of Transformer-XL and conditional language modelling system of the CTRL model to emulate argumentation strategies like card-stacking for producing higher quality counterarguments

Mu Sigma – Software Engineering Intern

Jun 2019 – Aug 2019, Austin, TX

India's largest data-driven management consulting firm

- Led a team of 3 interns to setup the 1st US-based AI interactive lab to showcase technological capabilities during client demos
- Implemented anomaly detection algorithms like recursive residuals from literature for univariate time series data
- Achieved 71% accuracy with a 0.89 recall on a client's simulated IoT data for automobile engines
- Developed an automated office assistant, *muNerva*, using Flask, Alexa Voice Services, Redis, and OpenCV

Cally – Data Analyst (Remote)

May 2019 – Sept 2019, Ithaca, NY

New York-based startup combining team science and data science to revolutionize team dynamics

- Analyzed 7+ factors identified by Cornell researchers as stimuli of negative mood dissemination through teams
- Increased employee participation (15%) by restructuring surveys based on regression models used to predict response rates

Leadership

Cornell Cup Robotics – CS Team Lead

Feb 2019 – Present, Ithaca, NY

Oversaw development of a distributed system to control Minibot, an educational robot to teach children to code using Google Blockly

- Collaborated with Systems, Electrical and Mechanical sub-team leads to define workflows and implement objectives for Minibot
- Managed an 18-member software team to complete computer vision, database management, and computer networking projects
- Optimized the single-camera vision system by decreasing sensor to GUI lag from ~35s to ~5s by restructuring code base
- Regulated public GitHub, led scrums and code reviews, and pitched marquee features to C-suite of partnering ed-tech startup

Cornell University – Teaching Assistant and AEW Instructor

Aug 2019 – Present, Ithaca, NY

CS 4786/5786 (Machine Learning for Data Science), CS 1110 (Python) & MATH 2940 (Linear Algebra)

- Selected as 1 of 2 sophomore teaching assistants for a graduate level machine learning course with 180+ students
- Guided office hours, created and graded assignments, and handled questions on Piazza to assist students' learning experience
- Lectured on linear algebra concepts in a weekly workshop to a class of 18 students (on campus and on Zoom)

Projects

Indian Institute of Management (IIM) – COVID-19 Modeling

April 2020 – June 2020, Mumbai, India

- Chosen as part of a 4-student team from a pool of 250+ applicants to collaborate with an IIM professor for a research project
- Applied Bayesian statistics to expand on the SIR epidemiological model to improve estimation of model parameters
- Prepared a quantitative report to be submitted to the Indian government with quarantine/testing recommendations

TextDirect – SMS-based routing (Send "TextDirect" to (+1) 256-488-4302)

Dec 2019 – Jan 2020, Ithaca, NY

- Launched a navigation service providing step by step Google Maps directions as text messages (Twilio, Google Cloud Platform)
- Aimed at benefitting feature phone users and users in areas where internet/mobile data penetration is limited

Skills & Activities

Programming: Python | Java | Scala | R | PyTorch | TensorFlow | AWS | Google Cloud Platform | Git | Linux | Docker | Scikit-learn

General: Leadership | Design Thinking | Project Management | Agile | Scrum | Resource Planning | Teaching

Activities: Theta Tau Professional Engineering Fraternity | Cornell European Business Society | Intramural Soccer

Interests: Linguistics | Tennis | Acting | War Documentaries | Game Theory | Quentin Tarantino | Cooking | Manchester United