

# ABHINAV KUMAR

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## SKILLS

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Georgia Institute of Technology, Atlanta, GA

*Bachelor of Science in Industrial Engineering with CS and Intelligence Minor – In progress*

Spring 2021

♦ Current GPA: 4.00

## SKILLS

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**Software Engineering:** Java, JavaScript, Node.js, MongoDB

**Data Analysis:** Python, R, NumPy, Pandas, Scipy, SQL, Tableau, Excel

**Mathematics:** Probability, Discrete Mathematics, Stochastics, Statistics

**Optimization:** Linear Programming, Integer Programming

**Machine Learning :** PyTorch, Tensorflow, Keras, Scikit-Learn

**Server Programming:** Chalice, Flask, Express

**Languages:** Fluent: Tamil, Proficient: Spanish, Basic: Hindi

**Cloud Computing:** AWS, Azure, Google Cloud

**Outside Courses:** Coursera Deep Learning Specialization

## PROJECTS

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- ♦ Worked with Chinmaya Mission to create image recognition and search platform to process search archives and allow for distribution of old photos using AWS Chalice, DynamoDB, S3, and Rekognition API's
- ♦ TreeHacks project: Golden Gate is a Chrome extension that analyzes news articles and provides related articles, ranking them by their bias as well as providing contextualization information. Created using Node.js, Express, React, and Google Cloud NLP

## WORK EXPERIENCE

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UPS

*Engineering Co-op, January 2018 – April 2018, August 2018 – December 2018*

- Network Optimization with analysis of current flight routes and possible alternatives using SQL and Excel
- Machine Learning for freight transit-time prediction using random forest, boosting, and deep neural network models
- Machine Learning using XGBoost for analyzing causes of delays in UPS Freight Network
- Implemented system to rank causes of delays to allow for mitigation
- Introduced the team to Python for data analysis, Tensorflow, Keras, deep learning, and Jupyter Notebooks
- Will be working on automated Network Planning Tool for package transportation Summer of 2019

## LEADERSHIP AND EXTRACURRICULAR EXPERIENCE

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- GT Agency: Worked on team to create Android app using Tensorflow to implement Visual Question Answer algorithm to answer questions about user submitted images using word embeddings, RNN and CNN architectures and attention to provide accurate answers
- HackGT:
  - Currently creating team formation platform to facilitate better team matching at hackathon events using Node.js and MongoDB. Future plans include implementing insights algorithm for intelligent team matching
  - Part of educational outreach committee, through which I gave a presentation regarding Neural Style Transfer with more planned for the future

## COMMUNITY SERVICE

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- ♦ Working extensively with Chinmaya Mission Chapter of Alpharetta for various events
- ♦ Event Coordinator and former Assistant Teacher (2016-2017) at Chinmaya Mission of Alpharetta