

# Abhijit Gupta

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## Education

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### Yale University

New Haven, CT

BS. Computer Science, BS. Applied Mathematics (GPA: 3.80)

Expected May 2022

- Coursework: Systems Programming, Data Structures, Machine Learning, Linear Algebra, Discrete Mathematics
- Activities: YHack Organizing Team, Yale Computer Society, Yale Interactive Machines Group

## Experience

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### RTI International

Raleigh, NC

#### Data Warehouse Intern

May 2020 - August 2020

- Designed campus monitoring dashboard to visualize temporal building occupancy, saving an estimated \$100,000
- Implemented automated demand prioritization system for the BI team, reducing manual preparation time by 80%
- Leveraged knowledge in Microsoft SQL Server, Microsoft Power BI, Data Visualization, Agile Methodology

### Yale University

New Haven, CT

#### Research Intern | Interactive Machines Group

January 2020 - Present

- Building an end-to-end deep learning pipeline analyzing social group phenomena for human-robot interaction
- Optimizing custom data preprocessing, model architecture, and loss function to improve prior metrics by 14%
- Leveraging knowledge in Python, PyTorch, TensorFlow, GitLab, Neural Network, Scientific Writing

### Yale University

New Haven, CT

#### Research Intern | Language, Information, and Learning at Yale (LILY) Lab

August 2019 - December 2019

- Trained machine learning model to classify salient events in 2D physics simulations with 91% accuracy
- Contributed to research paper studying implicit physical reasoning in NLP (<https://arxiv.org/abs/2005.00730>)
- Leveraged knowledge in Python, SciKit Learn, Data Analysis, Machine Learning, Scientific Writing

## Projects

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### Statbotics.io ([statbotics.io](http://statbotics.io))

January 2020 - Present

- Establishing an open-source full-stack data analytics platform for the FIRST Robotics Competition
- Developing Django REST API, ReactJS frontend (**2,000+ visitors**), Python PIP package (**1,500+ downloads**)
- Utilizing: Python, MySQL, Django Rest Framework, ReactJS, HTML/CSS, Travis CI, Google Cloud, GitHub

### YHack Website ([yhack.org](http://yhack.org))

March 2020 - Present

- Manage six developers designing the YHack frontend, YHack application system serving 2,000+ candidates
- Utilizing: Python, Django, Postgres, HTML/CSS, Heroku, GitHub, Project Management, Documentation

### CourseTable ([coursetable.com](http://coursetable.com))

July 2020 - Present

- Contributing to team redesigning CourseTable, Yale's leading course search website, with modern frameworks
- Spearheading initiative using NLP on 10,000+ course descriptions to predict similarity, sentiment, keywords, etc.
- Utilizing: Python, GraphQL, Hasura, ReactJS, Docker, Natural Language Processing (TF-IDF, LSI, Word2Vec)

### Project Horus ([avgupta456.github.io/HackMIT-2019](https://avgupta456.github.io/HackMIT-2019))

September 2019

- Developed a receipt scanning tool using NLP and OCR, won the 2019 HackMIT FinTech Track among 30+ teams
- Utilized: Python, NumPy, Pandas, Amazon Web Services, HTML/CSS, Natural Language Processing

## Skills

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**Languages:** (*Proficient*) Python, JavaScript, HTML/CSS, SQL, C (*Familiar*) Java, C++, Matlab, R, ROS

**Frameworks/Libraries:** (*Proficient*) Django, ReactJS, NumPy, PyTorch (*Familiar*) GraphQL, Pandas, TensorFlow

**Technologies/Concepts:** (*Proficient*) Git, Databases, Google Cloud, REST API (*Familiar*) CI/CD, AWS, Docker