# ROHIT MITTAPALLI

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Undergraduate looking to use data analytics and software engineering to empower business

## **EDUCATION**

## **Georgia Institute of Technology**

B.S in Computer Science. Minor in Economics

Graduation: Dec 2020 **GPA**: 4.00

Certifications: Udacity Data Science Analyst Nanodegree Program, Udemy Apache Spark with Java, Udacity Developing Android Apps,

Udemy AWS Machine Learning with Python, Udemy Deep Learning Prerequisites: The Numpy Stack in Python

Achievements: 1st at Citadel DataOpen at Georgia Tech, Discover Citadel Invitee, Vanderbilt Hackathon Awards, International Student Science Fair representative, National Merit Finalist

### **WORK EXPERIENCE**

**BazaarVoice** May 2018 - Present

Incoming Data Science Intern

Austin, TX

### The Home Depot Search Components Team

Software Engineering Intern

January 2018 - Present Atlanta, GA

- Empowered Home Depot to objectively improve autocomplete predictions by creating a metric to assess quality and relevancy
- Removed bias from current metrics by using Word2Vec and a RNN for term diversity evaluation instead of Home Depot data
- Provided insight into the autocomplete system by analyzing the impact of recommended term diversity on autocomplete usage

#### **Northwestern University**

June 2015 - June 2016

Research Intern

Evanston, IL

- Created models able to increase data speeds by designing bandwidth allocation schemes in a network of femto and macrocells
- Analyzed informational cascades with 2 more nuances than mathematical models by using a markov chain and first step analysis
- Shared work by presenting the Markov chain model at the 700+ person Informational Theory and Applications conference

### **Illinois Mathematics Science Academy**

June 2016 - August 2016

Research Intern

Aurora, IL

- Proved ability to decentralize problems with swarms by simulating minimalist swarms capable to approximate a gradient
- Controlled swarms through minimal communication by using physicomimetics to organize them into complex shapes
- Heuristically solved various graph theory problems with limited processing power required using ant swarms modeled in C

# PERSONAL PROJECTS

Citadel Data Open February 2018

- Won \$20,000 at a Citadel hosted data open along with a team of 3
- Analyzed city data to optimally place public service buildings in 6 cities across America using heatmaps and a random forest

### WeLocate—Vandy Hacks (Most Disruptive Hack by RedVentures / Best Financial Hack by Capital One)

- Developed a web app for small business owners to capture relevant data and use machine learning to find startup locations
- Created the machine learning model on AWS and used python scripts for data collection across multiple open APIs

## Pokémon Go—Swarm Algorithm

June 2016 - August 2016

- Created a heuristic swarm algorithm to find a Euclidean circuit across my local park to optimize Pokémon Go loot
- Tested algorithm on distance weighted graph of a local park and improved efficiency from 18 to 21 stops in 30 minutes

# **Home Depot Convolutional Neural Network**

November 2017

- Created a convolutional neural network in Tensor Flow and Python to categorically sort product images
- Sorted images of chandeliers, windows, lamps and similarly related items with 91% accuracy

#### **LEADERSHIP**

**FRC Robotics** September 2015 - Present

CAD Head, Captain, Adult Mentor

- Led a 55+ member team, organized sessions, managed finances and mechanically supervised for over 500 documented hours
- Increased retention rate by over 200%, increased population from 20 to over 55 members, more than doubled total man hours

### Computational Finance Club @ Georgia Tech

November 2017 - Present

Treasurer, Undergraduate Head

- Handles club account with student government, organizes budgets, and maintains ledger of voting membership
- Creating undergraduate awareness of the club and initiative by hosting joint master and undergraduate computational contests

### **Automated Algorithms Design – Vertically Integrated Project**

January 2018 - Present

- Designed machine learning, genetic, and evolutionary algorithms to outperform optimization methods and existing algorithms
- Predicted the effect of news headlines on stock prices using EMADE genetic programming and bag of words NLP algorithms

#### **SKILLS**

Languages: JAVA, Python, C#, SQL, C++, R, HTML/CSS, Spark, MATLAB

Frameworks/Tools: Android Studio, TensorFlow, GIT, AWS ML Studio, Tableau, LaTeX, Maven, Jupyter Notebooks, Bootstrap