

Rohit Mittapalli

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Education

Georgia Institute of Technology: Computer Science | Graduation: May 2021

Illinois Mathematics and Science Academy: High School Diploma | 3.88

Programming/Software:

- **Proficient:** JAVA, C#, C++, Autodesk Inventor, Android Development, Python
- **Knowledgeable:** SQL, MATLAB, LaTeX, Autodesk Maya, Amazon Web Services

Courses: Multivariable Calculus, Computational Science, Number Theory, Discrete Mathematics, Modern Geometries

Online: Udemy: AWS Machine Learning: A Complete Guide With Python, Deep Learning Prerequisites: The Numpy Stack in Python **Udacity:** Developing Android Apps, (*Enrolled*) *Data Science Analyst Nanodegree Program*

Achievements: Representative at the International Student Science Fair, Illinois Junior Academy of Science State Gold and Navy Award, Meritorious Award in High-School Mathematics Contest in Modeling, National Merit Finalist

Work Experience

Software Engineering Intern at BazaarVoice (Austin, TX): May 2018 - August 2018

Software Engineering Intern at HomeDepot Search Engine ML (Atlanta, GA): January 2018 - May 2018

Researcher at Illinois Mathematics Science Academy (Aurora, IL): June 2016 - August 2016

- Generated simulations in C of minimalist robotic swarms capable of working together to approximate a gradient

Researcher and Northwestern University (Evanston, IL): August 2015 - June 2016

- Investigated bandwidth allocation schemes in a heterogeneous network of femtocells and macrocells
- Developed MatLab skills and quickened optimization techniques

Researcher at Northwestern University (Evanston, IL): June 2015 - August 2015

- Studied the effect of experts and noise on the probability of a correct informational cascade
- Used a Markov Chain model, coded in MatLab, and solved using First-Step analysis and Monte Carlo

Intern at MadLab Industries (Aurora, IL): June 2015 - August 2015

- Participated in an offseason FIRST Robotics competition
- Gained skills working with CNCs, plasma cutters, welding equipment, and 3D printing technology

Leadership/Activities

Georgia Tech RoboJackets (Software Member of Robocup): September 2017 - Present

Computational Finance Club @ Georgia Tech (Treasurer): November 2017 - Present

FRC Robotics (Captain/CAD Head): September 2015 – July 2017

- Captain of a 55+ member team, organized sessions, managed finances, and found sponsorship for the team.
- 3D modeled the robot in Autodesk Inventor

Maker Squad (CAD Head): August 2015 – July 2017

- Board member for high school's maker space
- Helped allocate funding for new technology, managed all CADs requested by faculty such as the custodial staff

Projects

Home Depot Convolutional Neural Network: November 2017

- Created a neural network in Google Tensor Flow and Python to categorically sort product images with 91% accuracy.

WeLocate welocate.now.sh (Vanderbilt Hackathon Winner) October 2017

- *Most Disruptive Hack* by RedVentures and *Best Financial Hack* by Capital One
- Created a web app for business owners to capture relevant data and use machine learning to find viable startup locations.
- Personally, I created the machine learning on AWS and created the scripts for data collection across multiple open APIs

Time Allocator App August 2017-Present

- Created an Android app capable of storing tasks and planning schedules.
- App takes advantage of Google Maps API for distance and Google Firebase to store information on the cloud.

Machine Learning Introduction (Boosted Decision Tree and Neural Network): May 2017 - June 2017

- Programmed two machine learning algorithms in C#: boosted decision trees and a general neural network with gradient descent as back propagation to find weights and biases.

Particulate Collisions: March 2017 - April 2017

- Modeled simple objects (cube, sphere) as a combination of particles connected by springs and modeled collisions between the objects and the ground and collisions between the objects themselves.

Pokémon Go—Swarm Algorithm: June 2016 - August 2016

- To optimize my Pokémon Go loot, I created a distance weighted graph of my local park's PokéStops and generated a heuristic swarm algorithm to find a Euclidean circuit, finding reasonable success.

HiMCM Marathon Modeling:**October 2016**

- With a team of four, I modeled a triathlon as a Newtonian fluid in C# and used Monte Carlo to model real-life data