

Aryan Mittal

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

B.S. Computer Science, B.S. Mathematics

August 2022 – May 2025

- *Concentrations:* Intelligence and Information Internetworks, Probability and Statistics
- *Relevant Coursework:* Data Structures & Algorithms, Probability & Statistics with Applications, Database Systems, Graph Theory, Linear Algebra, Multivariable Calculus, Combinatorics, Object-Oriented Programming

Community Christian School

Stockbridge, GA

High School Diploma, GPA: 4.0/4.0, Valedictorian

August 2018 – May 2022

EXPERIENCE

Simulation Architecture Engineer

September 2022 – Present

Yellow Jacket Space Program: Flight Dynamics Team

Georgia Tech, Atlanta, GA

- Expanding rocket simulator capabilities to model black box deployment and parachute descent in MATLAB
- Aiding development towards YJSP's goal of launching liquid-fueled rocket to Kármán Line (edge of space)

Graph Theory Researcher

October 2021 – Present

Clayton State University Department of Mathematics

Morrow, GA

- Invented "The Cordiality Game" (original graph-theoretic game) and studied optimal play strategies
- Implemented best-play algorithm in C and proved sharp upper bound theorem for game score on paths
- Investigating game's mixed-strategy Nash equilibrium and co-authoring final paper

Assistant Football Coach (Statistician/Analyst)

June 2019 – November 2021

Community Knights Varsity Football Team

Stockbridge, GA

- Analyzed game film and compiled detailed opponent tendency reports using Python, Microsoft Excel, and Hudl
- Developed comprehensive decision trees using Scikit-learn to model opponent offensive play-calling
- Reduced weekly defensive planning time by over 50%
- Awarded state championship ring (2019) and 2 varsity letters (2019 and 2021)

GHP Software Engineer

June 2021 – July 2021

Georgia Governor's Honors Program (GHP)

Berry College, Rome, GA

- One of 13 Georgia students chosen to receive fully-funded educational experience in Software Engineering
- Developed remote-controlled (RC) model M4 Sherman tank with 2 other students
- Programmed RC-to-tank wireless communication, tank motion software, and live camera feed web server
- Presented project to 650+ students and faculty at GHP 58 Engineering Expo

PROJECTS

Home Rental Price Prediction | github.com/thearyanmittal/atl-home-rentals

July 2022 – Present

- Scraped over 30,000 Atlanta region home rental listings from Georgia MLS site
- Cleaned data and visualized feature correlation with price using Python, Pandas, Numpy, Matplotlib, Seaborn
- Evaluating performance of various regression models and ensemble methods on dataset with Scikit-learn

Balanced News Aggregator | balancednews.us

October 2020 – February 2021

- Created Django web application to combat political confirmation bias that presents news articles from both sides of the political spectrum to users
- Scraped data from 10 different news sites using BeautifulSoup and Selenium
- Code at github.com/thearyanmittal/news-aggregator

Facial Recognition & Mask Detection | github.com/thearyanmittal/facial-recognition

June 2020 – August 2020

- Implemented system using TensorFlow and OpenCV that identifies and labels faces in live camera feed and detects whether face mask is being worn properly

TECHNICAL SKILLS

Languages: Python, MATLAB, SQL, HTML/CSS, L^AT_EX, Java

Libraries/Frameworks: Pandas, NumPy, Matplotlib, Scikit-learn, TensorFlow, OpenCV, Seaborn, Pyplot, Django, BeautifulSoup, Selenium

Developer Tools: VS Code, Google Colab, Jupyter Notebook, Git/GitHub, Microsoft Excel, Linux/Unix, Windows