

Roy Makkar Gabriel

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Education:

Bachelor of Science, Industrial & Systems Engineering (Analytics and Data Science); Expected graduation: May 2022
Georgia Institute of Technology, Atlanta, GA

Bachelor of Arts, Natural Science (Physics, Mathematics, Pre-Engineering); Expected graduation: May 2022
Covenant College, Lookout Mountain, GA

Current Overall GPA: 3.8/4.0

Work Experience:

Mechanical, Biomedical, Industrial Engineering Intern, and Data Scientist / June 2020 – August 2020 | Raleigh, NC
Scinovia Corporation (Medical Supply Startup)

- Assembled, analyzed, and evaluated numerical data to obtain optimal lens and laser configuration which decreased product costs by 35%
- Redesigned mechanical design and 3D printing projects that increased production efficiency by 83%
- Innovated a machine vision algorithm that obtained the topography of organs during open surgeries using Matlab and C/C++

Arabic Teacher Assistant and Math and Physics Tutor / August 2017 – May 2020 | Lookout Mountain, GA
Covenant College (Liberal Arts Institution)

- Succeeded in fully developing 20% of the class from beginner to intermediate, conversational Arabic
- Raised students' performance in math and physics classes from failing grades to an average of B+
- Reduced data congestion by managing 48 excel sheets dealing with students' attendance, grades, and weekly, online coursework

Leadership:

Robotics Club Treasurer / August 2020 – May 2020 | Lookout Mountain, GA
Covenant College

- Reduced costs from \$10,000 a year to \$2,190 a year by assessing and evaluating historical club data
- Coordinated an introduction course to programming Arduinos using C and experimented with different Robot Kits and sensors
- Established teams and collaborated with professional engineers to research methods to enhance and recreate Astec's "Silobot"

Director, Chair, and Group Mentor / June 2008 - Aug 2020 | London, UK | Beirut, Lebanon
Model United Nations Club / Life Agape (Non-Profit Organization under Campus Crusade)

- Awarded the team the all-time record for most Secretary-General Awards (SGs) in a single delegation and the most SGs in New York City MUN Conference by directing and training 36 delegates
- Earned the highest MAL public speaking and conflict resolution honor award representing the Middle East in Georgetown University
- Profited high school \$4,000 by orchestrating a MUN Conference at the High School that included over 200 students from all over Lebanon
- Contributed to an international refugee crisis by offering humanitarian aid and providing food and supplies to families
- Advertised for non-profit organizations providing food and shelter for families who lost their homes due to political unrest
- Supervised groups of tourists, taught Arabic classes, and presented safety guidelines to groups of over 100 people

Projects:

Undergraduate Research Assistant / August 2020 – December 2020 | Atlanta, GA
Georgia Tech Integrated AI-based Discovery and Innovation Project

- Utilized AI-based approaches to form systematic methods to learn the unidentified governing axioms in algorithmic financial markets
- Developed data processing software for detecting patterns in markets using TensorFlow, neural networks, optimization, and data analysis
- Contributed to institutional research that focused on forming dynamic AI algorithms for extracting valuable knowledge from large data sets
- Innovated a personal stock market algorithm that detects self-developed mathematical models in the market and automates trades

Skills:

Software: TensorFlow, Jupyter Notebooks, AutoCAD, Microsoft Office Suite

Coding: MATLAB, Python, MySQL, LaTeX. Self-taught C/C++, HTML5, CSS, and JavaScript

Engineering: Artificial Intelligence, Deep-Learning, Machine Learning, Neural Networks, Data Mining, Management, and Visualization, Quantitative Analysis, Pandas, Numpy, Image Processing, Database Design and Management, Relational Data Systems and Modeling, Bayesian Probability, Gaussian Distributions, Markov and Chebychev's Inequalities, Time Value of Money, Income Taxes and Equipment Depreciation, Financial Modeling, Cost and Decision Strategy Analysis, GPU, Linear Algebra, Differential Equations

Communication: Technical Scientific Reports, Presentations, Public Speaking, Conflict Resolution, Client Engagement, Private Tutoring Experience, English (fluent), Arabic (native), French (beginner)

Music: Piano. Self-Taught: Guitar and Drums

Honors, Awards, and Certifications:

- Recipient and active participant in the Maclellan Scholars Program (Full Tuition Scholarship) and the Hope Scholarship
- Member of the Institute of Industrial & Systems Engineers and the American Society of Mechanical Engineers