

# Daniel Öman

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## Education

### GEORGIA INSTITUTE OF TECHNOLOGY

2021 – 2025 (expected)

B.S. Computer Science, concentrations in Intelligence and Theory | 4.0/4.0 GPA

### ATLANTA INTERNATIONAL SCHOOL

2017 – 2021

Valedictorian | 4.53/4.0 GPA | 45/45 points on International Baccalaureate exam, top 1% of global candidates awarded

## Experience

### GOOGLE

#### Incoming Software Engineering STEP Intern

Starting May 2023

### GEORGIA TECH COLLEGE OF COMPUTING

Atlanta, GA

#### Undergraduate Teaching Assistant

August 2022 – Present

- Collaborating with professor and other teaching assistants to teach Java object-oriented-programming concepts to ~30 students during weekly recitations
- Grading exams and homework, writing homework assignments, and writing auto-graded unit tests in Java for ~550 students
- Helping students with problem solving and code debugging during weekly office hour sessions

### ERMI

Atlanta, GA

#### Engineering Intern

July – August 2021

- Analyzed data and created decision trees from health insurance claims data from 1k+ knee surgery patients using R
- Identified highest cost patients to target for non-surgical intervention

#### Engineering Intern

July – August 2019

- Analyzed data from a robot that diagnoses knee injuries
- Learned and used R to organize and plot datasets to assess and visualize the reliability and accuracy of the robot
- Analysis to be incorporated into research papers

### GEORGIA TECH RESEARCH INSTITUTE

Atlanta, GA

#### Engineering Intern

June – July 2020

- Worked in a team of 4 to develop an app that creates a Bluetooth mesh network for emergency communication
- Implemented routing algorithms in Python and Java and ran simulations of the app to investigate network properties and stability

## Leadership and Involvement

### CONSULT YOUR COMMUNITY

Atlanta, GA

#### Business Analyst

August – December 2022

- Conducted market research for a local sauce company to solidify the client's target audience and revamp social media strategy
- Aggregated and plotted 10k datapoints of consumer data to determine best product pairings for the next sauce product launch
- Drafted social media and search engine optimization strategy report to be used by the client in the following calendar year

## Example Projects

### Minesweeper (Personal Project)

December 2022 – Present

- Developing a Minesweeper game in Java using depth-first search algorithms for game logic and win/loss checking
- Utilizing JavaFX for the graphical user interface and writing algorithms for a bot that plays the game

### Ruter-Sju Card Game Bot and Monte Carlo Simulation (Personal Project)

December 2021 – November 2022

- Designed and implemented algorithms in Python to play card game Ruter-Sju to investigate best game strategy
- Built a Monte Carlo simulation with 20k+ games and used Pandas and PyPlot libraries to analyze and visualize game data

### International Soccer Analytics (GA Tech CS 2316 Final Project)

January – April 2022

- Analyzed what makes a professional soccer team successful across the top five European leagues
- Web-scraped and aggregated over 190k datapoints from websites and databases and created diverse visualizations in Python

### Mathematics Library (Personal Project)

August – December 2021

- Implemented many mathematics algorithms in Python from scratch to solve tedious computational problems
- Algorithms include converting a matrix to reduced row echelon form, inverting a matrix, decimal-fraction converter walking the Stern-Brocot tree to a given error, polynomial multiplication, and various numerical integration methods

## Skills

**Technologies:** Python (Including Pandas, NumPy, Beautiful Soup), Java (Including JavaFX), LaTeX, MySQL, R, Git

**Relevant Coursework:** Data Structures and Algorithms, Linear Algebra, Multivariable Calculus, Discrete Mathematics

**Languages:** Fluent in Spanish, Swedish, English

**Affiliations:** Delta Chi Fraternity (Scholarship Chair), Society of Hispanic Professional Engineers, Consult Your Community