Daniel Öman

dsoman24@gmail.com | (470) 553-5299 | Atlanta, GA
github.com/dsoman24 | www.linkedin.com/in/daniel-s-oman

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 Sunnyvale, CA
Software Engineering (STEP) Intern *May 2023 – Present*

GEORGIA TECH COLLEGE OF COMPUTING Atlanta, GA
Undergraduate Teaching Assistant (Homework Lead) *August 2022 – Present*
- Managing a team of 40 TAs in the development and grading of 12 homework assignments per semester for ~700 students as TA Homework Lead for CS 1331: Intro to Object-Oriented Programming, under Prof. Richard Landry and Dr. Aibek Musaev
- Leading weekly recitations for 50 students and helping students with problem-solving and code debugging during one-on-one office hours
- Grading 4 exams per semester and writing auto-grader unit tests for assignments using the Java Reflection library

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 the 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

GEORGIA TECH FINANCIAL SERVICES AND INNOVATION LAB Atlanta, GA
Undergraduate Researcher *January – May 2023*
- Led a team of 4 researchers in performing sentiment analysis on earnings calls (EC) transcripts on 12 electric vehicle (EV) companies using the natural language processing model FinBERT and library NLTK
- Developed a custom web scraper using BeautifulSoup and Requests to extract any given EC transcripts from The Motley Fool
- Created dynamic visualizations on analyzed text data to conclude that 5 major US government subsidies drove spikes in positive sentiment in ECs from companies that focus on EV production

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 data points of consumer data to determine the 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 Probabilistic Strategy (Personal Project) *December 2022 – Present*
- Developed a probabilistic algorithm to solve Minesweeper games with a 96%, 80%, and 30% win rates for easy, medium, and hard difficulties, a significant improvement over the 46%, 22%, and 13% human win rates for each respective difficulty
- Implemented a Minesweeper game in Java using JavaFX for user interface and applied graph algorithms for backend game logic

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

Skills

Technologies: Python (Including Pandas, NumPy, Beautiful Soup), Java (Including JavaFX, Android Studio), C, MySQL, R, Git
Languages: Fluent in Spanish, Swedish, English
Affiliations: Delta Chi Fraternity (Scholarship Chair), Society of Hispanic Professional Engineers, Consult Your Community