Diego Arenas ● arenas.diegom@gmail.com ● /in/diegomarenas/ ● (760)214-5046

Education

Massachusetts Institute of Technology, Cambridge, MA — May 2023
BS in Mathematics with Computer Science (18C) & Business Analytics (15-2)

Relevant Coursework

Distributed Algorithms ● Stochastic Processes ● Machine Learning ● Optimization Methods ● Stats and Data Analysis ● Advanced Algorithms ● Applied Math in Finance ● Theory of Computation

Technical Skills

Languages	Python, R, SQL, Julia, Java, TypeScript, C#, C++, LaTeX
Programs & Tools	MS Excel, Tableau, PowerBI, Jupyter Notebook, Github, VSCode, IntelliJ
Certifications	AWS Cloud Practitioner

Work Experience

Optimal and Fair Patient Placement in Hospital Emergency Departments, MIT — 06/2022 – 09/2022
Undergraduate Researcher

- Contributed to a robust integer program to reduce hospital waiting times by over 75% across 40,000 patients
- Utilized Julia to access patient data, run simulations, and Gurobi Optimization to analyze optimal admission

A Study on the Ethereum Merger, MIT — 09/2022 – 11/2022
Undergraduate Researcher

- Gathered transaction data with Etherscan API and from the Ethereum blockchain
- Ran simulations and performed analyses in Python using Matplotlib

Latinx MBA Association, Remote — 06/2021 – 09/2022
Intern

- Automated a member matchmaking process with Python(PuLP) and Google Sheets API, reducing worktime by 95%
- Utilized a LinkedIn API and MS Excel to gather membership statistics and present findings to funding sources
- Worked with PowerBI to present dashboards and KPIs to the executive board

Centric Consulting, Chicago, IL — 06/2021 – 08/2021
Intern, Consulting - Data and Analytics

- Explored a data management system on insurance claims for a multi-year analytics project
- Co-authored on-boarding materials (project briefs, scopes, documentation) targeted towards future team members

Manush Labs, Remote — 07/2020 – 08/2020
Intern, Outreach

- Researched business models for a startup incubator, networking with peers in the field
- Benchmarked resources, programs, and funding information

Leadership

MIT 15.434 Graduate Financial Mathematics, Tutor — 06/2022 – 08/2022

- Tutored 3 graduate students in linear algebra, statistics, stochastic processes via weekly sessions

Sigma Nu, Treasurer/Scholarship Chair/House Manager/Secretary/Steward — 08/2020 – 08/2022

- Oversaw $150K+ bi-yearly budgets, and monitored the payment of 100+ invoices
- Managed repairs, inspections, chores, and vendor services

Society of Hispanic Professional Engineers (SHPE), Treasurer — 06/2021 – 06/2022

- Managed a $100K+ budget, dependent on financial sponsorships, purchases, and partnerships.
- Received, processed, and recorded financial reimbursements for SHPE Events