

# Andres M Menendez

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## School and Degrees

### Georgia Institute of Technology

Online Masters In Computer Science Candidate | fall 2022 | GPA: 3.90  
- Specialization in Machine Learning

Bachelor of Science in Mechanical Engineering | spring 2018 | GPA: 3.13  
- Minor in Energy

## Professional Experience

### WithHansa Front End Lead Developer | summer 2022 - current

Founded, designed, created and developed the entire Front End framework for WithHansa  
Developed hooks, API endpoints, and built connections to third party applications.  
Explored and researched existing technologies to begin building the WithHansa application

### Branch.vote Startup Front End Developer | spring 2021 - fall 2021

Volunteered work to help develop React.js components for Branch.vote website  
Implemented an AWS Lambda hook to split audio to provided time markers and save to AWS S3 bucket

### PIC Group CAD Developer | summer 2018 - spring 2019

Created and completed full system P&IDs via AUTOCAD from field drawings  
Verified and located telemetry devices for power plant systems

### Cupertino Electric Internship | summer 2017

Automated processes to minimize run-time and human error via excel VBA macros  
Optimized P&ID take-off process via kNN Image Reading Python AI Tool

## Project Experiences

### AICrowd Multi-Agent Behavior Challenge | fall 2021

Built and upgraded supervised and unsupervised neural network models with PyTorch to predict classifications  
Designed and implemented loss-modules to deal with class imbalances  
Trained, tested, cross-analyzed and presented multiple supervised and unsupervised<sup>1</sup> model performances  
Scored in the top 25 performances of the MABe Challenge<sup>2</sup>

### Reinforcement Learning Explorations | spring 2021

Modeled and trained a DQN to solve the OpenAI Lunar Lander via TensorFlow  
Tested, monitored and optimized power performance of active sub-systems  
Created and programed control systems for lighting and circulation pumps

### Hydroponics Startup Electrical Systems Engineer | spring 2018

Designed entire 200 W electrical system to run pumps, lights and indicators  
Tested, monitored and optimized power performance of active sub-systems  
Created and programed control systems for lighting and circulation pumps

### Research at Georgia Tech (STEEL) | spring 2016 - spring 2018

Designed, programmed and tested theoretical models and simulations via MATLAB  
Modeled a cross-variable parametric analysis to optimize system variables  
Acknowledged in a published academic paper under the Journal of Power Sources

## Engineering Portfolio

Website Portfolio | <https://www.andmenendez.com>

Github | <https://github.com/andmenendez>

## Technical and Soft Skills

**technical** | Python, Java, AWS S3 and Lambda, C#, Javascript, HTML, CSS, Ruby, VBA, Git, SQL, MATLAB, HCI/psychology  
**libraries** | PyTorch, Tensorflow, Matplotlib, Numpy, Pandas, SQL, Jupyter Notebooks, React, Django  
**software** | CAD (Solidworks, UG-NX, Autodesk), FEA (ANSYS), Unity, Blender  
**other** | climbing, alpinism, sailing, writing, philosophy, music production, bilingual (Spanish), barista

[1] Alexander Limia, et al, "A dual-stage sodium thermal electrochemical converter (Na-TEC)", Journal of Power Sources 371 (2017) 217-224

[2] <https://www.aicrowd.com/challenges/multi-agent-behavior-representation-modeling-measurement-and-applications/problems/mabe-task-1-classical-classification/submissions/167477>