

Matthew Hurtado

U.S. Citizen — matthew.e.hurtado@gmail.com — 201-887-2400 — www.linkedin.com/in/mehurtado

Curious, driven student seeking internship opportunities for Summer 2025

Education

Rensselaer Polytechnic Institute (RPI)

Dual Major - Bachelor of Science in Computer Science & Mathematics, Minor in Logic

Expected Graduation: May 2026

Troy, NY

Cumulative GPA: 3.78

Rensselaer Leadership Award, Rensselaer Polytechnic Institute, Chess Club, BJJ Club

Relevant Coursework

Quantum Computing, Computational Optimization, Analysis, Linear Algebra

Involvement and Experience

RPI Computer Science Department

Mentor

Aug 2023 - Present

Troy, NY

- Assist students in Computer Science I with developing problem-solving skills and programming etiquette
- Assist students in Foundations of Computer Science to develop proof-writing maturity and intuition
- Evaluate students' performance on lab assignments
- Conduct recitation sessions to reinforce course material

RPI Advising and Learning Assistance Center

Tutor

Aug 2024 - Present

Troy, NY

- Assist several students weekly in multivariable calculus and differential equations
- Assist students in upper level courses including algorithms and numerical computing by request

A-Squared Pool Management

Lifeguard

June 2019 - Aug 2023

West Milford, NJ

- Monitored and maintained pool chemistry
- Signed patrons in and enforced pool rules
- Watched swimming patrons carefully and performed rescues when necessary

Legends Corner Pub

Busboy, Dishwasher

May 2018 - Nov 2020

Midland Park, NJ

Rho Pi, Rensselaer Alpha Epsilon Pi Fraternity

Member

Jan 2023 - Present

Troy, NY

Relevant Projects

Quantum Mechanics Inspired Financial Prediction

Summer 2024

- Developed and implemented quantum-inspired transformer models using PyTorch and Numpy to predict financial market closing prices, with an average accuracy of 98.89%, by interpreting transformer outputs as wave functions.

Soft-margin Support Vector Machine

Spring 2024

- Reformulated the problem with the Augmented Lagrangian function, derived expressions for the iterative update scheme.
- Implemented the ALM in MATLAB, achieved >90% accuracy results on various data sets.

Chess Computer

Summer 2023

- Implemented alpha-beta pruning, the minimax algorithm, and iterative deepening, in Python, to evaluate board states, enabling more accurate computer play.
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Skills

Python, Java, C++, C, LaTeX, MATLAB, MIPS, Q#, Qiskit, SQL, C#, PyTorch, Pandas, NumPy, scikit-learn, TA-Lib