THOMAS GORDON

School of Engineering, Brown University, Providence RI 02912

thomas_gordon@brown.edu — 401-321-0252 — he/him/his

[GitHub](#) — [Website](#)

EDUCATION

Brown University Providence, RI
ScB with Honors, Computer Engineering Expected May 2026
    Thesis: Quantization methods for machine learning on embedded systems
    Advisor: Sherief Reda

LPS Qubit Collaboratory (UMD) Online
Quantum Computing Summer Short Course July 2025

RESEARCH EXPERIENCE

Scalable Energy-Efficient Computing Systems (SCALE) Laboratory June 2025–Present
Undergraduate Researcher
Principal Investigator: Sherief Reda
- Investigated the efficacy of various post-training quantization methods for ViTs when deployed to physical hardware, optimizing for memory and latency while minimizing accuracy drop.
- Profiled the effect of blockwise quantization on quantization-aware training times of multi-task learning models compared to typical quantization methods.

Center for Computation and Visualization (CCV) January 2025–Present
Research Assistant
Principal Investigator: Bradford Roarr
- Proposed and developed a novel task scheduler for Oscar (Brown University's HPC cluster) to reduce carbon impact while minimizing task queuing times.
- Designed a simulator to estimate the carbon impact of tasks run on Oscar, using power consumption calculations, HPC task records, and historical power grid data.

Center for Computation and Visualization (CCV) June 2024–August 2024
Software Sustainability Intern
Principal Investigator: Bradford Roarr
- Proposed and developed a task scheduler plugin for Oscar to incentivize off-peak energy consumption for users.
- Adapted an open-source multi-container computing cluster for internal use at CCV.

PAPERS

(In Preparation) **T. Gordon** and B. Roarr. *EcoPace: A Carbon-Conscious Scheduler for Research Computing Environments.*

PRESENTATIONS

Adapting Quantization Techniques For Multi-Task Learning Models. August 2025
Poster presented at the Summer Research Symposium, Brown University, Providence, RI.

FELLOWSHIPS

Brown University Advanced Undergraduate Research Fellowship   June–July 2025

PROJECTS

32-bit RISC-V Processor   https://metaterminal.fyi/processor/
Created a RISC-V ISA pipelined 32-bit CPU capable of running at frequencies of up to 95MHz, with register, immediate, load, store, branch, and jump instructions.

Brown Puzzlehunt Site   https://brownpuzzlehunt.com/
Contributed to the creation and maintenance of bph-site, a framework for running complex web applications for Brown's puzzlehunt events, including team-based logins, progress tracking, and answer checking.

MIT Mystery Hatch Site   https://mitmysteryhatch.com/
Co-developed a custom serverless Next.js web application for the MIT Mystery Hatch event, in collaboration with MIT Puzzle Club.

Penchant Puzzlehunt Site   https://penchantpuzzlehunt.com/
Developed and deployed a web application for the Penchant Puzzlehunt event for over 400 teams of solvers, using the bph-site framework.

MIT Mystery Heist Site   https://mitmysteryheist.com/
Co-developed a static site with locally-saved progress for the MIT Mystery Heist event, in collaboration with MIT Puzzle Club.

SKILLS AND PROFICIENCIES

Programming Languages	C/C++, Rust, Python, Racket, MATLAB
Hardware Design and Development	Quartus Prime, Verilog HDL, Altera FPGAs
Developer Tools	Git/GitHub, GNU/Linux, SLURM, LaTeX

LEADERSHIP

Brown Puzzle Club   January 2023–Present
Puzzle Director, Editor-in-Chief
- Led a large team (24 writers) to create a complex in-person annual puzzlehunt at Brown University, with over 200 in-person and 500 remote participants.

ARRR!!!   November 2022–Present
(currently) **Ombudsperson**, (formerly) **Captain, First Mate, Treasurer**
- Organized logistics and financials for Brown's only pirate a cappella group, facilitating recruitment, advertisement, and recurring performances both on-campus and offsite.

Walk Across Rhode Island   October 2025
Safety Coordinator
- Coordinated efforts to ensure the safety of over 200 walkers in adverse weather conditions, facilitating the fundraising of over $4700 for charity.