Mateo Taylor

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Education

University of Pennsylvania — Philadelphia, PA
M.S.E. in Computer and Information Science | GPA: 4.0 — *Sep. 2025 – May 2028*

Haverford College — Haverford, PA
B.S., Double Major in Computer Science & Sociology, Minor in Statistics | GPA: 3.9 — *Sep. 2023 – May 2027*
Extracurriculars: *HaverCode Board President, Hackathon Coordinator, Quantum Computing Club, Penn Poker Club*

Experience

DevOps Intern — Jun. 2026 – Aug. 2026
NBCUniversal — *Stamford, CT*
- Developed custom EC2 lookup tools that improved diagnostic times and infrastructure stability for a 15-engineer distribution team throughout high-stakes World Cup 2026 operations.
- Monitored GitHub and ArgoCD continuous delivery (CD) pipelines and engineered automated diffing tools, proactively mitigating broadcast risks for 150+ concurrent streaming channels.

Statistical Research Assistant & Teaching Assistant — Sep. 2024 – Present
Haverford College — *Haverford, PA*
- Investigated financial patterns in single-father households, preparing a dataset across 22 years and 3 million entries of CPS economic data in Python, with features cross-validated between IPUMS and Census Bureau records.
- Teaching assistant for Robotics, Data Science, and Introductory Programming courses.

Data Engineering Intern — Jun. 2025 – Aug. 2025
Roundhouse One — *San Francisco, CA*
- Automated data ingestion and hardware deployments for a team of 20+ on-site technicians and clients.
- Built iOS mobile app into AWS serverless infrastructure (API Gateway, Lambda, Redshift, S3), enabling secure data syncing and reducing deployment validation errors by 40%.

Projects

Brawl Stars Reinforcement Learning — *Jul. 2026 – Present*
- Built an RL agent that plays the mobile game *Brawl Stars* at a competitive level with only computer vision input.
- Trained with Proximal Policy Optimization (PPO) across 300 million matches in a custom vectorized simulator.
- Documented development in a YouTube series reaching 500,000+ views.

Rust Reinforcement Learning — *Sep. 2025 – Jul. 2026*
- Designed an RL agent to play *Rust*, a 3D survival game, learning from raw pixels to gather resources in real time.
- Trained YOLOv26 visual backbone and GRU action expert with behavioral cloning on recorded play, then with recurrent PPO across 500+ hours of gameplay in a custom C# environment.

Brooklyn Housing Development Analysis — *Feb. 2025 – Sep. 2025*
- Cleaned, merged, and visualized 65,000+ construction projects using R, GeoPandas, and ArcGIS.
- Conducted statistical analysis on 10-year housing growth, highlighting development trends east of Prospect Park.

Competitions & Awards

MLH Top 50 (2026) — *Major League Hacking*
- Selected from a global community of 150,000+ student hackers for exemplary innovation & hackathon research.

NexHacks 2026: 1st of 282 teams in Healthcare track — *Carnegie Mellon University*
- Developed SmartPT, utilizing custom hardware and 3D pose estimation to track physical therapy mobility.

HopHacks 2025: 2nd of 102 teams overall and 2nd in Healthcare track — *Johns Hopkins University*
- Built MedRelay, a multi-agent NLP pipeline that uses AI to map clinical dialogue directly to insurance forms.

PennApps 2025: 1st of 85 teams in Bloomberg Sustainability track — *University of Pennsylvania*
- Built CarbonChain, an EVM blockchain platform using smart contracts for transparent sustainability funding.

Tencent Global Open: Top 16 of 682 (2026), Top 16 of 336 (2025) in Intelligent Gaming Algorithms track
- Trained reinforcement learning agents to play the MOBA Honor of Kings against international competition.

Technical Skills

Languages: Python, R, C/C++, SQL (Postgres), JavaScript/TypeScript, Dart, Bash, HTML/CSS
Infrastructure: AWS Cloud, ArgoCD, Docker, Kubernetes, Terraform, Git, CI/CD
Frameworks & Libraries: PyTorch, pandas, NumPy, matplotlib, React, Next.js