

Jackson Webster

+1 (407) 790-9428 | github.com/jacksonwebster | jacksonhwebster@g.harvard.edu | linkedin.com/in/jackson-webster/

EDUCATION

Harvard University

September 2025 - May 2026

MSc, Computational Science and Engineering (CS & Applied Math)

Coursework: High Performance Computing, Distributed Computing, Big Data Systems

Brown University

September 2018 - May 2022

BSc, Applied Mathematics & Computer Science

GPA: 3.9

Coursework: Computer Systems Security, Deep Learning, SWE, Computational Prob. & Stat.

PROFESSIONAL EXPERIENCE

Apollo Global Management

New York, NY

Software Engineer

June 2023 - July 2025

- Built and deployed Apollo's first in-house order management system and trade execution platform – an event driven, low latency, high volume data infrastructure system responsible for \$500M in average daily trading volume (Python, Java, SQL, MongoDB, Azure Event Hubs)
- Designed core transaction schema library and event-driven architecture for trade lifecycle management, ensuring consistency and extensibility across asset classes, streamlining trade processing and decreasing deal processing times.
- Led production releases for the OMS application, owned CI/CD pipeline execution and production checks, and integrated platform-wide distributed tracing and error tracking (Sentry), improving observability and debugging capabilities
- Embedded directly with trading floor stakeholders to improve technical response time and align engineering priorities with business needs.

Meta

New York, NY

Software Engineer

September 2022 - February 2023

- Contributed to Meta's internal candidate tracking platform (Python, React), implementing new error handling and reliability improvements for high volume recruiter workflows
- Completed Meta's engineering bootcamp and coursework in ML, mobile development, and large-scale networking, gaining broad exposure to production infrastructure and engineering practices at scale.

Microsoft

Redmond, WA

Software Engineering Intern

June 2021 - August 2021

- Developed features for Azure's cloud storage systems (C++), integrating ML techniques to improve database lookup performance and memory efficiency.

PROJECTS

Emergent Misalignment · github.com/jacksonwebster/emergent-misalignment

September 2025

- Reproduced results from *Emergent Misalignment* ([arXiv:2502.17424](https://arxiv.org/abs/2502.17424)) by fine tuning LLMs on insecure training prompts; Exposed inconsistent and broadly misaligned behavior in popular LLMs (*openai-GPT2*) by leveraging Low-Rank Adaptation training techniques, as measured by alignment and coherence.

Multi-Paxos Distributed Consensus System

March 2026

- Implemented Multi-Paxos in C++ from scratch, covering failure free operation, link failure handling, leader failure recovery, and arbitrary network partition recovery, and performance optimization via leader batching

ML Training Profiler

Current

- Building a profiler to benchmark gradient checkpointing strategies during neural network backpropagation, analyzing compute vs. memory tradeoffs with respect to recomputing vs. storing activations. Implementing optimization algorithm to invoke optimal checkpointing schedule for minimum memory overhead

SKILLS

Languages: Go, Python, Java, C++, SQL, JavaScript, Typescript

Frameworks & Tools: Kubernetes, Docker, Prometheus, Grafana, Kafka, gRPC, REST, CI/CD, React, PyTorch, FastAPI, Flask, Git, AWS, Terraform

Specialized: Observability, Incident Response, Machine Learning, Event-Driven Architecture