

Brennan Davenport

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EDUCATION

University of Georgia

B.S. in Computer Science & B.S. in Mathematics, GPA 3.7/4.00

Athens, GA

Expected Graduation: May 2027

TECHNICAL SKILLS

Coursework: Algorithms, Data Structures, Computer Architecture, Discrete Math, Database Management

Languages/Tools: C++, Python, Java, Pandas, React, Django, Spring Boot, PyTorch, Azure, Git, Linux(Ubuntu)

Trading Competitions: 8th Georgia Tech, UMich (5th Jane Street, 5th Citadel, 9th Optiver), MathDash (Finalist)

EXPERIENCE

Incoming Software Engineer Intern

Apple

May 2026 – August 2026

Santa Clara, CA

- Incoming intern on the Applied Machine Learning (AML) team within Information Systems & Technology (IS&T)

Software Engineer Intern

Western Alliance Bank

May 2025 – August 2025

Dallas, TX

- Migrated FOREX trading services from Finzly to ION, yielding low-latency (less than 100ms), 99.9% uptime, and full regulatory compliance to support high-volume financial transactions and real-time data
- Identified bottlenecks in reading JSON files in Azure and built a scalable SQL Server database with a C# API pipeline processing 10,000+ records/month, eliminating delays and accelerating team throughput
- Engineered a CLEAN-architecture server template with 6 JWT-authenticated endpoints, adopted as the foundation for 14+ new services, standardizing secure, production-ready backend development across the team

Software Engineer Intern

Category Creations

June 2024 – September 2024

Athens, GA

- Developed a scalable routing solution using Google Apps Script to optimize routes for over 300 stores
- Increased routing accuracy by 20% through integration of K-nearest neighbor, two-opt, and three-opt algorithms
- Created a fully automated system that routes new store addresses instantly, handling all geocoding, distance math, and optimization; eliminating manual input and saving 50+ hours per month

PROJECTS

Market Exchange [[Github](#)] | *C++, CMake, Ninja, Concurrency*

December 2025

- Engineered a distributed market exchange backend in C++20 using TCP sockets for inbound order flow and UDP with TCP retransmission for outbound confirmations, containerized with Docker and orchestrated via CMake.
- Achieved 100,000 orders/sec throughput via lock-free concurrent queues, per-symbol ring-buffer pipelines, and multi-threaded matching engines optimized for low-latency order matching and trade reporting

Bermudan Option Pricer [[Github](#)] | *Python, PyTorch*

March 2025

- Developed DeepBermuda, a neural network-augmented Longstaff-Schwartz Monte Carlo (LSM) algorithm for pricing Bermudan, American, and European options, targeting complex multi-asset OTC derivatives
- Replaced traditional poly regression with a FNN to better approximate continuation values in high-dim options
- Benchmarked pricing accuracy against standard LSM using mean squared error and performance across varying volatility, moneyness, and dimensions (1D-10D)

LEADERSHIP & ORGANIZATIONS

Traders@UGA [[Link](#)] | *Founder & President*

January 2025 – Present

- Founded Traders@UGA, a quant trading club focused on projects, trading comps, and industry events with DRW
- Managed recruitment of 200+ applicants with a selective 5.5% acceptance rate and accepting 11 members

ICPC@UGA | *Member, Codeforces Rating - 1458*

January 2025 – Present

- Placed 4th in ICPC North American Southeast Division 2025 - Division 1
- Placed 10th in ICPC North American Regional Qualifier 2025 - Division 1

Honors & Activities | Corsair Society, Eagle Scout, Resident Assistant, Dean's/President's List (4x), ChessDawgs