Braden Coghlan

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Education

University of Georgia: BS in Computer Science, Minor in Statistics *M*ay 2026

- **GPA:** 3.5
- **Certifications:** Applied Data Science
- **Achievements:** Dean's List Fall 2023 & Summer 2025
- **Clubs/Activities:** Sports Analytics Club (Leadership), Pickleball Club, UGA School of Computing Study Abroad
- **Relevant Coursework:** Data Structures, Algorithms, Computer Networks, Computer Architecture, Mobile SW Development, VR Development, Software Engineering, Web Programming, Data Science, Statistical Programming, Applied Regression Analysis, Quality Statistical Assurance, Applied Experimental Design

Experience

Software Engineering Intern, Terma Group – Atlanta, GA May 2025 – Present

- Helped build OASIS using C++ from the ground up—an internal test tool that replays and validates Ethernet instrumentation traffic in software, letting engineers avoid long hardware-in-the-loop test sessions.
- Extended OASIS to work with real recorder data and internal message formats so teams can quickly reproduce issues, probe message timing, and verify configurations without booking lab hardware.
- Built a Wireshark Script using Lua for the same instrumentation protocol, surfacing IDs, data sizes, timestamps, counters, and bitfields directly in Wireshark to speed up debugging.
- Led migration of a legacy AppServ stack from a Windows XP box to Windows 11, including full DB dump/restore and privilege recreation; the modern environment is noticeably faster and more stable for day-to-day use.
- Building a Python/Tkinter "Test App Assistant" that captures Discrete/Ethernet/Serial/1553 user inputs and generates TestApp/EQT-compatible test scripts, enabling repeatable, zero-setup hardware test execution
- Implemented script generation + logging pipeline (Save/Clear state handling, input validation, and formatted output) to standardize test runs and reduce manual script editing for engineers.
- Documented setup and usage for OASIS, the Wireshark plugin, and the migrated stack, and collaborated via Git/PRs so other engineers can easily onboard and extend the tools.

Projects

VR Volleyball Training Simulator *N*ovember 2025

- Built a VR volleyball training app in Unity/C# for Meta Quest 3 with Ready/Start world-space UI, a laser-pointer "world mouse," and an onboarding flow that guides players into the court.
- Developed VR grab and highlight mechanics so players can raycast, select, and reposition individual NPCs; the system takes network ownership, syncs movement across clients, and visually highlights the targeted player.

Online Book Store *M*ay 2025 - July 2025

- Built a full-stack web app using Django REST API, Next.js/React TypeScript, and MySQL, that had user registration/login, profile & shipping management, and a clean component-based UI.
- Implemented payment-method CRUD with masked display, server-side validation, and optional add at signup

Travel & Weather App *D*ecember 2024

- Designed and developed a JavaFX application to display travel and weather information by integrating APIs.

Skills

Coding Languages: C++, C, C#, Java, Python, R, SQL, HTML/CSS, JS, Lua

Technologies: Git, Green Hills, Android Studio, R-Studio, Wireshark, Linux, BitBucket, Jira, Confluence, Unity