

Graysen Gould

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EDUCATION

Texas Tech University - Honors, Lubbock, TX
Bachelor of Science in Computer Science

GPA: 4.0
Expected Dec. 2026

- **Systems:** Computer Architecture (RISC-V), Assembly Language, Digital Circuits, Compiler Design
- **Software:** OOP, Data Structures and Algorithms, Computer Security (M.S.), Intelligent Systems (M.S.)
- **Math:** Linear Algebra, Statistics for Engineers, Calculus III

EXPERIENCE

Texas Tech Data-Intensive Scalable Computing Laboratory, Lubbock, TX
Research Assistant

Sep. 2025 - Present

- Contributed to and maintained **80+** automated **C** and **Bash** tests in **Linux**, ensuring **OpenSHMEM** v1.5 compliance
- Optimized **RaiderSTREAM** benchmark initialization, reducing overall benchmark startup time by over **50%**
- Integrated **UCC** collectives into **OpenSHMEM**, improving alltoall throughput by **5x** compared to internal collectives
- Improved **OpenSHMEM** benchmark implementation, adding features such as warm up routines to enhance test accuracy
- Automated **5** complex software builds with **Bash**, **CMake**, and **Git**, creating reproducible workflows for other researchers
- Collaborated with research mentor and **LANL** partners to identify areas of potential research for **OpenSHMEM**

Tyler Technologies, Lubbock, TX
Software Engineering Intern

May 2025 – Aug. 2025

- Saved **10+** hours per deployment cycle of the Municipal Payment Platform through an automated health-check system
- Designed a backend with **AWS Lambda** and **API Gateway**, lowering costs **80%** over microservices
- Reduced project deployment time by **90%** using automated **CI/CD** pipelines with **GitHub Actions** and **Terraform**
- Authored optimized **SQL** queries with **ADO.NET** across **8+** production database tables serving millions of users
- Enhanced **API** scalability and response speed by **50%** via database query caching using serverless **Memcached**

Walsh & Watts, Odessa, TX
Production Data Analyst Intern

June 2024 – Aug. 2024

- Automated weekly reports for **600+** oil wells using **Power BI** dashboards, saving **5+** hours weekly
- Consolidated insights from **10+** database tables using **SQL**, **Power Query**, and **Snowflake ETL pipelines**
- Ensured data integrity across **150+** oil leases by coordinating daily with **40+** field operators to validate inputs

TECHNICAL SKILLS

Languages: C, C++, CUDA, Python, C#, SQL, Bash, JavaScript

Systems & Tools: Linux/Unix, Git, AWS, Docker, Terraform, CI/CD, GitHub Actions

Frameworks & Libraries: MPI, OpenMP, MLIR, SLURM, OpenSHMEM

Core Concepts: Distributed Systems, Networking, Performance Benchmarks and Optimization

Software Practices: Networking, RDMA, Systems Debugging, Algorithms & Data Structures, Latency Optimization

PROJECTS

AuthLense - HackTX | FastAPI, WebSockets, Ethereum

Oct. 2025

- Built a CCTV verification prototype using **Ethereum** smart contracts in 24h, allowing courts to verify video evidence
- Integrated **FastAPI** backend and **WebSocket** streaming for real-time video verification and blockchain ledger retrieval
- Increased video throughput rate by **50%** over prior version using **FastAPI** and **VidGear** optimizations
- Helped engineer end-to-end pipeline connecting video, encoding layer, backend services, and blockchain verification

LEADERSHIP & COMPETITIONS

Winter Invitational Cluster Competition | 3rd Place

Jan. 2025 – Mar. 2025

- Competed against **10** teams for **10** weeks on distributed workload and system level optimization challenges
- Improved runtime costs for **WRF** weather simulation by **9%** by evaluating **AWS EC2** instance types and setups
- Parallelized serial simulation in **C** using **MPI** and **OpenMP**, improving runtime by **75%**
- Automated **HPCG** benchmark tuning with **bash** scripts, enabling faster experimentation and iteration

Google Developer Group TTU | Innovation and Outreach Lead

Aug. 2024 – Oct. 2025

- Organized technical workshops for **50+** students, expanding access to developer tools and industry practices
- Directed sponsorship efforts for West Texas's Largest Hackathon, **HackWesTX**, securing **\$16,000+** in funding