Donnell Fulwiler

512-966-5734 | dbfulwiler@gmail.com | https://donnell.info | linkedin.com/in/donnell-fulwiler | github.com/donnell-f

Education

Texas A&M University — College Station, TX
B.S. Computer Science; Minor in Statistics; GPA: 3.93 / 4.00 — *Aug. 2023 – May 2027*

Experience

Undergraduate Research Assistant — 2025 – Present
Chemical Engineering, Texas A&M University — *College Station, TX*

- Design convolutional neural networks in Python (TensorFlow, PyTorch) to recognize patterns in bacterial images.
- Collaborate with graduate researchers to build ML workflows, manage labeled image datasets, and track model performance under NDA constraints.

Undergraduate Teaching Assistant, CSCE 120 — 2025 – Present
Texas A&M University — *College Station, TX*

- Lead weekly C++ labs for ˜40 students and support hundreds more through office hours and online help.
- Reinforce CS concepts—control flow, functions, pointers, data structures—through live coding, debugging, and one-on-one mentoring.
- Built and maintained *Gradescope Sleuth*, a plagiarism-detection tool that helped uncover about 10x more AI generated submissions per assignment with less manual effort.

Data Science Intern — Summer 2025
Kaizen Action LLC — *Remote*

- Engineered and backtested tactical trading algorithms on equities, with several strategies achieving over 15% simulated ROI.
- Processed multi-gigabyte financial time series in Python (pandas, NumPy) to clean, aggregate, and engineer features at scale.
- Applied econometric models (ARMA/ARIMA, GARCH, EGARCH) to capture volatility clustering and trends, reaching up to 85% accuracy on selected classification tasks.
- Experimented with TensorFlow-based Hidden Markov Models to model regime shifts and improve trading signal robustness.

Projects

Gradescope Sleuth | *Python, Selenium, SQLite, Regex, LRU Cache* — 2025

- Automates retrieval of programming assignments from Gradescope with Selenium and stores submissions in SQLite for analysis.
- Uses an LRU cache optimized Regex implementation to efficiently detect AI generated code across roughly 800 submissions.
- Enabled the CSCE 120 TAs and instructors to identify about 10x more AI plagiarism cases per assignment while reducing manual review time.

Personal Web Server | *React, Node.js, Express.js, Caddy, AWS Lightsail, Appwrite* — 2025

- Host two web applications on an Amazon Lightsail VPS using Caddy as a reverse proxy with automatic TLS.
- Developed donnell.info as a static React portfolio showcasing projects, coursework, and writing.
- Built a secure React-based homework portal for CSCE 120 using Google OAuth via Appwrite and an Express.js backend to gate course materials.
- Used React to implement "AI traps" in assignment text that appear only when copied, helping instructors detect LLM-generated work at scale.

ExSELLence POS | *React, Node.js, Express.js, PostgreSQL, Google OAuth, Google Translate, OpenWeather* — 2025

- Collaborated with a team of five to design and build a point-of-sale web app for small retailers.
- Implemented a responsive React frontend and Express.js API with PostgreSQL to manage transactions, inventory, and customer data.
- Integrated Google OAuth for authentication and used Google Translate and OpenWeather APIs to localize the interface and improve checkout for diverse users.

Technical Skills

Languages: C++, Python, Java, Haskell, JavaScript, SQL, HTML, CSS
Frameworks & Libraries: React, Node.js, Express.js, TensorFlow, NumPy, pandas, Selenium
Databases: PostgreSQL, SQLite3
Tools & Platforms: Git, Linux, Amazon Lightsail, Caddy, Appwrite
Domains: Machine Learning, Time Series Analysis, Econometrics