

Griffin Kuchar

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EDUCATION

Texas Christian University (TCU)

Expected May 2027

B.S. in Computer Science | Minors: Mathematics, Economics | GPA: 3.8/4.0

Fort Worth, TX

- **Continuing Education:** Directly into an M.S. in Computer Science (Aug 2027 – Expected Dec 2028)
- **Relevant Coursework:** Data Structures & Algorithms, Machine Learning, Deep Learning, Software Engineering, Web Technologies, GPU Computing, OOP & Design Patterns, Operating Systems, Linear Algebra, Econometrics

EXPERIENCE

AMD

May 2026 – August 2026

Systems Engineering Intern | Mobile Systems (SoC) Team

Austin, TX

- Developed an agentic AI web application that automates first-level hardware debugging, reducing triage time by **80%** for **250+** validation and systems engineers; Python/FastAPI backend, React frontend.
- Designed the agent as an LLM-driven tool-calling loop that autonomously runs triage and debug procedures on downloaded files, iterating until it declares a root cause or reaches its token/loop limit.

AMD

May 2025 – August 2025

Validation/Debug Engineering Intern | System Validation Team

Austin, TX

- Built a chat UI adopted by **20+** engineers that queries Jira tickets by translating plain-English into structured JQL via the OpenAI API, cutting ticket-searching time by **50%**; Python/Flask backend, React frontend.
- Validated AMD CPUs/APUs by designing and executing stress-test workloads with 15+ unique components across 20+ systems. Triageed **100+** test failures and root-caused **~5** BIOS issues in platform-level systems.

TCU NextGen AI Research Lab

January 2026 – Present

Machine Learning Research Assistant

Fort Worth, TX

- Engineered an end-to-end ML pipeline predicting pediatric clinical decompensation from patient vitals in collaboration with Children's Health Dallas and the TCU Nursing Department.
- Implemented preprocessing, model training, and hyperparameter tuning across 8 classification models; top performer reached **0.98** AUROC and **0.70** PR-AUC on severely imbalanced test data.

PROJECTS

CNN Emotion Detector | Python, CuPy, NumPy, CUDA, Streamlit

[GitHub](#)

- Trained a CNN emotion-classification model accelerated with custom CUDA kernels via CuPy on 36,000+ images across three emotion categories; reached 69% test accuracy and served inference through a Streamlit GUI.
- Achieved a **9.07×** speedup over its vectorized NumPy CPU implementation.

FrogCrew Event Scheduler | Java (Spring Boot), JavaScript (Vue.js), Docker, Azure

[GitHub](#)

- Developed and shipped a full-stack scheduling platform used by TCU Sports Broadcasting to automate event assignment for **~15** students and faculty members across 7 sports, reducing time spent tracking availability and scheduling by **~70%**; containerized with Docker and deployed on Azure.

Big-Tech Stock Classifier | Python, Jupyter, scikit-learn, pandas, NumPy

[GitHub](#)

- Built a pipeline predicting the next day's best-performing tech stock using 6 years of OHLCV market data, custom technical indicators, and expanding-window time-series validation; achieved a **1.52×** lift over a random baseline.

LEADERSHIP & ACTIVITIES

Vice President, *Upsilon Pi Epsilon (CS Honor Society), TCU Chapter*

2025 – Present

Undergraduate SWE Tutor & Mentor, *TCU Computer Science Department*

2025 – Present

Entrepreneur & Content Creator, *YouTube (60K+ Subscribers)*

2023 – 2026

TECHNICAL SKILLS

Languages: Python, C++, Java, C, TypeScript, JavaScript, SQL, CUDA

ML / AI: PyTorch, scikit-learn, pandas, NumPy, matplotlib, Jupyter, CuPy, LLM APIs (OpenAI, Claude, Gemini)

Web / Backend: React, Next.js, Tailwind CSS, Node.js, FastAPI, Flask, Django, Spring Boot, Vue.js, Streamlit

Cloud / DevOps / Databases: Git, Docker, Linux, AWS, Azure, Vercel, nginx, PostgreSQL, MySQL, Redis, Supabase