Christopher Guzman

Email | LinkedIn | GitHub | Portfolio Website

EDUCATION

Augusta University Augusta, GA
B.S. in Computer Science, B.S. in Cyber Operations, Minor in Mathematics May 2027
Involvement: The Delta Chi Fraternity (Officer of Philanthropy, 2024); ACM@AU (Lead Developer, 2026)

TECHNICAL SKILLS

Languages: Python, Java, C#, C/C++, JavaScript/TypeScript, Assembly, Bash, HTML/CSS, PostgreSQL, SQLite
Technologies: PyTorch, TensorFlow, scikit-learn, Apache Spark, Databricks, React, Node.js, FastAPI, Flask, ASP.NET, Docker, Kubernetes, Git, GitHub Actions, RAG, REST APIs, ELK(Elastic), Svelte/SvelteKit, Redis, Alembic, Three.js, Vite

WORK EXPERIENCE

Augusta University, College of Allied Health Professions, Augusta, GA – *Software Engineer, Intern* August 2026 - Present

- Shipped a 3D walkable radiation-therapy clinic simulator (Three.js/Typescript). 19 rooms, NPC Behavior, a guided patient-journey state machine, and an SDK contract connecting arcade learning apps to a SvelteKit/FastAPI/PostgreSQL platform.
- Diagnosed and eliminated frame-rate stalls in the simulator by profiling the render loop. Removed ~55 per-room point lights from the forward renderer, capped device pixel ratio, distance-gated NPC updates, and added an adaptive quality floor.
- Refactored two single-file simulators (10,600+ and 1,700+ lines of embedded JavaScript) into Vite-build Typescript modules trees (~30 modules), building a transpile-and-token-diff verification harness to prove each migration was behavior identical.

Jubilee Farms, Remote - *Full Stack Engineer, Contract* March 2026 - Present

- Maintain a production ASP.NET/jQuery shipping and order-tracking system used daily by a live aquaculture operation, integrated with Caspio REST API
- Diagnosed a silent save failure caused by invalid JSON escaping across 18 payload fields; rewrote the serialization, so records containing quotes or apostrophes persist instead of being dropped by the API.
- Optimized order grid rendering by replacing O(n×m) jQuery lookups with pre-indexed Map data structures and DocumentFragment batch DOM writes, reducing runtime from 112ms to 23ms, a 79% performance improvement.

SteelGate LLC, Hybrid – *AI/ML Engineer/Data Scientist, Intern* June 2026 - July 2026

- Engineered a TLS-secured pipeline across an Apache Web Server, Filebeat, Logstash, Elasticsearch, and Kibana on Kubernetes, eliminating plaintext log transport by securing every in-cluster hop with TLS and mTLS.
- Trained an autoencoder for anomaly detection, engineering 10 features from 600k logs with sin/cos time encoding.
- Fixed a threshold calibration failure producing 267 false positives on clean data by identifying reconstruction errors as log-normal and moving median/MAD thresholding into log-space with a volume gate, cutting false positives to zero.

Association for Computing Machinery@AU, Augusta, GA – *Lead Developer* January 2026 - Present

- Shipped the AU ACM chapter's production website, SvelteKit/TypeScript frontend, FastAPI/PostgreSQL backend, on a self-managed Oracle Cloud ARM VM behind a Cloudflare Tunnel, Dockerized with Alembic migrations and nightly backups.
- Designed authentication end-to-end. JWT access and rotating refresh tokens with token-family theft detection, Argon2 hashing, TOTP 2FA, email verification, and step-up sudo mode for admins.

SIEGE CyberOps, Augusta, GA - *GRC Analyst, Intern* June 2025 - June 2026

- Conducted 100+ third-party security risk assessments evaluating MFA, SSO, encryption, and handling of regulated data (PII, PHI, GLBA, FERPA), assigning risk scores by exposure and control maturity.
- Led weekly GRC meetings and presented risk metrics dashboards to cybersecurity leadership.

PROJECT EXPERIENCE

OFFRes/OFFPay | *Python, SQLite, SQLAlchemy, FastAPI, TypeScript, React, Vite, leaflet.js, Chromium* March 2026

- Won Capital One's Best Financial Hack at Vanderbilt's VandyHacks building an offline payment device on a Raspberry Pi 5.
- Engineered a QR-based payment system with HMAC-SHA256 signed transactions for secure vendor payments.
- Integrated a local LLM (TinyLlama 1.1B) with BM25-based RAG retrieval across a disaster knowledge base.

Cyber Threat Lakehouse | *Python, PySpark, Delta Lake, Databricks, MLflow, scikit-learn, SQL* February 2026

- Built incremental Databricks pipeline (Auto Loader, Delta MERGE, CDF) over 2.54M flows; reruns add zero duplicates.
- Added an 11-check data-quality gate that fails the pipeline on any violation and feeds a Databricks dashboard.
- Raised intrusion-alert precision 77% to 84% at 94.5% recall by tuning thresholds on a validation split (ROC-AUC 0.999).
- Froze encodings and thresholds as model artifacts to fix train/serve skew; tracked 6 models in MLflow + UC registry.