

Education

Texas A&M University <i>Pursuing M.S. Computer Science</i>	College Station, TX <i>Expected 2028</i>
Texas A&M University <i>B.S. Computer Science & B.S. Statistics, Summa Cum Laude</i>	College Station, TX <i>May 2026 GPA: 3.92/4.00</i>

Technical Skills

- Data Science & Statistics:** Python, R, SQL, pandas, NumPy, SciPy, scikit-learn, Bayesian inference, MCMC, hypothesis testing, FDR correction, Matplotlib
- Bioinformatics & HPC:** GenomeMap, PAML/codeml, dN/dS, pN/pS, FASTA pipelines, Slurm, Linux, TAMU HPRC
- Machine Learning & Data Systems:** PyTorch, Hugging Face Transformers, LangChain, AWS, MongoDB, Elasticsearch, Redis, Git, GitHub Actions
- Programming:** Java, C++, TypeScript, JavaScript, React, FastAPI, Docker, PostgreSQL

Experience

Graduate Assistant Research (GAR) - Computational Genomics <i>Ioerger Lab, Texas A&M University</i>	June 2026 - Present <i>College Station, TX</i>
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- Investigating evidence of positive selection in *M. tuberculosis* genomes from diabetes and non-diabetes patient cohorts, analyzing approximately **4,000 genes** to identify candidate genomic differences for a manuscript in preparation.
- Built reproducible **Python and Slurm** pipelines for cohort QC, FASTA processing, Bayesian dN/dS estimation with **GenomeMap**, and posterior comparisons across large-scale TAMU HPRC runs.
- Validated selection signals with pN/pS enrichment, chi-square testing, Benjamini-Hochberg and local-FDR correction, drug-resistance positive controls, and independent **PAML/codeml** site-model analyses.

Software Engineering Capstone - Amazon-Sponsored <i>Texas A&M University</i>	August 2025 - December 2025 <i>College Station, TX</i>
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- Built a breach-intelligence analytics platform in a **3-person team**, implementing **Scrapy and Tor** ingestion plus a **LangChain and Gemini 2.5 Flash Lite** pipeline for entity extraction and threat classification.
- Designed storage and retrieval across **AWS S3, MongoDB, Elasticsearch, Redis, and Neptune**; delivered Streamlit and Kibana views for querying unstructured breach data by sector and geography.

Undergraduate Researcher <i>UrbanResilience.AI Lab, Texas A&M University</i>	January 2025 - May 2025 <i>College Station, TX</i>
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- Built **Python** ingestion and preprocessing pipelines integrating air-quality sensor APIs and web-scraped wildfire data across Los Angeles sources for downstream emergency-response analysis.

AI Engineering Intern <i>Videomagic</i>	May 2024 - August 2024 <i>Remote</i>
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- Developed and evaluated **PyTorch and Hugging Face Transformers** computer-vision workflows for AI-generated video detection, analyzing frame-level outputs and model failure modes for product deployment.
- Built **Feathers.js, MySQL, and Knex.js APIs** for model inference and data management, secured with **Auth0 and JWT RBAC**; shipped AI features associated with **15% higher engagement**.

Projects & Competitions

PickLedgerPro <i>Python, scikit-learn, pandas/NumPy, TypeScript, GitHub Actions</i>
- Built and deployed an automated multi-sport prediction and evaluation platform spanning 8 team-model and 3 player-prop pipelines with versioned JSON contracts and a Vite/TypeScript frontend. - Designed immutable pregame ledgers and probability-calibration workflows evaluated with Brier score, log loss, ECE, and market baselines; automated 15-minute grading, validation, and GitHub Pages deployment.

Alpha - Tidal Hackathon 2025 <i>React, TypeScript, Multi-LLM - 1st Place</i>
- Built a math-learning SPA orchestrating Gemini, OpenRouter, Claude, Manim, Desmos, and Wolfram Alpha; reduced tool-call failures from 25% to 6% through output normalization and validation.