# Hailey Muñiz

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## Education

**The University of Texas at San Antonio** San Antonio, TX

*Bachelor of Science in Computer Science, Tech Management Minor; GPA: 3.8* *Expected May 2029*

- **Concentrations:** Data Science and Software Engineering
- **Affiliations:** Terry Foundation Full-Ride Scholarship, UTSA Honors College, Break Through Tech, ACM

## Experience

**Break Through Tech AI Studio Fellow** Aug. 2026 – Present

*ABT Global* *Remote*

- Collaborate with ABT Global through Break Through Tech AI Studio to migrate the CMS hospital quality rating pipeline from legacy SAS to Python, supporting accurate and reproducible quality assessments for 2,891 hospitals
- Contribute to a collaborative software engineering environment using Git, Docker, pytest, and mypy to support code quality, automated verification, and consistency between Python implementations and existing SAS outputs

**Undergraduate Researcher** June 2026 – Present

*Engaging Computer Researcher Lab, University of Texas at San Antonio* *San Antonio, TX*

- Conduct research on K–12 AI education through NSF-funded AI for Everyone and EducateAI initiatives, supporting student learning, teacher professional development, and the evaluation of interactive AI learning tools
- Lead undergraduate research efforts analyzing teacher pre/post survey data using Excel, descriptive statistics, and paired t-tests; conduct qualitative coding of interviews, evaluate AI educational applications through user testing, and collaborate with graduate researchers on conference posters and papers

**Research Intern** June 2026 – August 2026

*Educational Testing Service (ETS)* *Princeton, NJ (Remote)*

- Designed and iterated system instructions to investigate how prompt modifications could improve the quality and relevance of LLM responses for student learning
- Developed a user persona framework and evaluation rubric to systematically assess student–AI interactions, LLM-based coding support, and alignment of generated feedback with student needs

**IES Pathways Research Fellow** Oct. 2025 – Oct. 2026

*Pathways to Education Research, UT San Antonio* *San Antonio, TX*

- Selected for the IES Pathways to Education Research Training Program, receiving mentorship in computing education research, systematic literature reviews, and research methodology
- Conducted a scoping review of K–12 AI learning tools using the Use–Modify–Create framework to examine opaque- and glass-box approaches; presented findings at 3 undergraduate research showcases

## Projects

**SASGuard** | *Python, SAS, pytest, Docker, Git* Aug. 2026 – Present

- Analyzed SAS hospital-rating logic, including domain-weight redistribution, eligibility thresholds, peer-group construction, and clustering behavior; developed pytest tests to validate missing-domain handling, eligibility boundaries, and hospital counts against SAS reference outputs
- Documented development setup, testing workflows, and reference-data requirements; developed a reproducible Docker walkthrough to demonstrate validation results and identify discrepancies

**Blueprint** | *Figma, Next.js, TypeScript, Tailwind CSS, Gemini API* Oct. 2026

- Designed the UI/UX for an AI-powered web application that helps users discover technical projects, create personalized roadmaps, and receive step-by-step guidance
- Developed interactive Figma prototypes, wireframes, and user flows to define the interface and navigation; structured JSON outputs and refined Gemini API prompts to generate consistent project plans for application integration

## Technical Skills

**Languages**: Python, Java, C, C++, SQL, JavaScript, TypeScript
**Libraries/Frameworks**: Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, Next.js, Tailwind CSS, pytest
**Developer Tools**: Git, GitHub, Docker, VS Code, Figma, Gemini API