

Sergio Betancourt

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EDUCATION

Texas A&M University | **GPA: 3.55**

Bachelor of Science in Computer Science

College Station, TX

May 2028

EXPERIENCE

Project Estimator

Palmer Interiors LLC

May 2025 – Aug 2025

Tyler, TX

- Produced project bids by translating construction blueprints into material quantities, labor requirements, and final pricing using MeasureSquare 8 and company cost data.
- Improved estimate accuracy by verifying material pricing with tile distributors and incorporating current supplier costs into contractor proposals.
- Partnered with estimators to establish competitive margins and deliver completed bids within contractor deadlines.

PROJECTS

WNBA In-Play Prediction System | *Python, scikit-learn, PostgreSQL, WebSockets, Linux* Jul 2026 – Present

- Built a live pipeline that polls ESPN game state and streams Polymarket order books over WebSocket into PostgreSQL, shadow-trading model signals as paper bets behind fail-closed freshness guards; archived 20.7M frames across 10 game slates with zero parse or sequence errors.
- Trained in-play (Q1/half/Q3) logistic-regression win-probability models on 503 games from the 2025–26 seasons; a two-feature v2 (score margin + sportsbook prior) cut Q1 holdout log loss from 0.591 to 0.573 and beat the market midpoint prospectively (0.334 vs 0.350, n=83).
- Evaluated with walk-forward validation and 10,000-resample date-block paired bootstrap against market and blind-underdog baselines, with promotion gates pre-registered in code, including the negative result that pregame models did not beat closing lines.
- Gated every byte-reproducible release bundle behind 1,600 tests across 53 suites plus a sha256 manifest and secret scan; CI runs migrations against PostgreSQL 17, and collectors run via cron on a Linux VPS.

Embedded Control System | *ARM Assembly, STM32F401RE, Keil MDK*

Apr 2026 – May 2026

- Programmed an STM32F401RE in bare-metal ARM Assembly to sample a potentiometer through the on-chip ADC and display a real-time power percentage on a 16×2 HD44780 LCD.
- Drove PWM-controlled LED brightness and a four-level LED bar-graph power indicator from the sampled input, with a mode switch and USART2 serial output.
- Designed and wired the breadboard circuit and debugged register corruption, GPIO write, and USART baud-rate configuration issues.

CodeAIde | *JavaScript, React, Next.js, Prisma, PostgreSQL, OpenAI API*

Jan 2025

- Built a full-stack coding-practice platform with the Next.js App Router, React, and Tailwind CSS, backed by Next.js API routes and a Prisma/PostgreSQL data layer.
- Integrated the OpenAI API to analyze code submissions and return feedback on time complexity, optimization opportunities, and programming practices.

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, SQL, C, ARM Assembly

Frameworks & Libraries: scikit-learn, pandas, NumPy, React, Next.js, Tailwind CSS, Prisma

Tools & Technologies: PostgreSQL, Git, GitHub Actions, Linux, Keil MDK, REST APIs

RELEVANT COURSEWORK

Data Structures and Algorithms (C++) | Programming Languages | Computer Organization

Microcontroller Architecture | Discrete Mathematics | Applied Statistics

AWARDS & CERTIFICATIONS

HackRice 14 — Beginner Track Winner

Sep 2024

Lean Six Sigma Yellow Belt — Texas A&M Electronic Systems

May 2026