

# NATHAN PENA

Computer Science Student

github.com/nathan-pena1 | nathanpena.com | 832-285-6257 | nathanjaypena2@gmail.com

---

## SUMMARY

Computer Science student with a 4.0 major GPA and hands-on experience building Python and C++ projects using REST APIs, automation, OOP, and data structures. Seeking a Software Engineering Internship focused on backend development, problem-solving, and building reliable software.

## EDUCATION

**Texas State University** | *B.S. in Computer Science, Minor in Communication* *Expected May 2028*

Major GPA: 4.0/4.0 | Dean's List: Fall 2025 | Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming in Java, C++ Programming II, Discrete Math II, Assembly Language, Technical Communication

## TECHNICAL SKILLS

**Languages:** C++, Python, Java, SQL (Basic), HTML/CSS

**Tools:** Git, Linux CLI, VS Code, Cursor, Postman, Salesforce CRM, Microsoft Excel

**Concepts:** Object-Oriented Programming, Data Structures & Algorithms, REST APIs, Finite State Machines, K-Anonymity, Automation

## PROJECTS

**Battleship Game Engine with FSM Opponent AI Bot** | C++, Raylib

- Engineered a fully playable Battleship game using object-oriented design, separating board state, ships, player actions, and game logic into maintainable components.
- Implemented  $O(1)$  hit detection and sunk-ship tracking using cell-based ship references to efficiently update gameplay state.
- Built an opponent AI with a finite state machine and queue-based targeting system to switch between "Search" and "Destroy" strategies.
- Integrated a Raylib GUI with interactive grids, visual feedback, and real-time gameplay animations.

**Breach-Checkr Password Exposure Tool** | Python, REST APIs

- Developed a command-line cybersecurity tool that queries the Have I Been Pwned API to check whether passwords appear in known breach datasets.
- Implemented a K-anonymity model using SHA-1 hashing to verify password exposure without sending raw passwords over the network.
- Added input handling and API response parsing to return clear breach-count results to the user.

## PROFESSIONAL EXPERIENCE

**Real Estate Agent, Premier Agent Network**

*May 2025 - Present*

- Built a Python script to automate lead follow-ups, reducing repetitive outreach work and speeding up marketing workflows for new and active property listings.
- Managed residential leasing workflows across lead intake, property tours, applicant communication, lease documentation, and tenant move-in coordination.
- Communicated with clients, prospects, and other agents to coordinate showings, answer property questions, and maintain organized transaction documentation.
- Analyzed open-house feedback to provide clients with practical recommendations on pricing, positioning, and tenant interest.

**Operations / Business Development Intern, HCM Staffing & Consulting**

*May 2022 - Aug. 2022*

- Created and edited digital training content using AI video-generation, media editing, and captioning tools for DEI education modules.
- Researched and organized prospective client data in Salesforce CRM to support targeted outreach and follow-up planning.
- Conducted warm and cold outreach to prospective clients, communicated product value, and booked demos with qualified prospects.