

Johan Zapata

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EDUCATION

Clemson University, Clemson, SC
BS in Computer Science, Minor in Cybersecurity

GPA: 3.30

TECHNICAL SKILLS

- Programming Languages: Python | C | C++ | SQL | Java | | HTML/CSS
- Frameworks & Tools: Django | Node.js | Expo | Postman | Azure DevOps | Wireshark
- Cloud & Platforms: AWS (Lambda, EC2, DynamoDB, API Gateway) | Linux
- Development Practices: Agile | Scrum | Kanban | Git & GitHub | Test-Driven Development (TDD)
- Bilingual: English (Fluent) | Spanish (Fluent)

PROJECT EXPERIENCE

Battleship – Web Application Development Jan 2026 – Current

- Built a 2-player distributed Battleship game with an **HTML/CSS/JavaScript** front-end and **Python/Flask REST API**, implementing turn-based HTTP gameplay with server-authoritative **game state** (ship placement validation, hit/miss tracking, win detection) enforced via **CRUD** endpoints and correct HTTP status codes.
- Deployed and hosted the full application stack (frontend, backend, and **PostgreSQL** database) on **Northflank**, using the database as the single source of truth for all game state, player sessions, and username-based session resumption across reconnects.
- Designed and maintained the team’s **Postman** testing suite across Phase 1 & 2, covering **regression testing** of all REST API endpoints to validate game logic, server-side rules, and correct HTTP response codes after each development iteration.
- Leveraged Claude & Gen. AI to co-design the system architecture, iterate on the **PRD** and tech specs, evaluate tradeoffs (client vs. server responsibility, **DB schema**, hosting strategy), and debug integration issues.

Driver Incentive Program – Senior Computing Practicum Project Aug 2025 – Dec 2025

- Developed a **full-stack** Driver Incentive Program with a small-scale team using **Django, Node.js, MySQL**, and AWS to manage sponsor-assigned driver reward points, multi-wallet balances, and catalog purchases, implementing RBAC, automated notifications, and system-wide admin protocols.
- Resolved critical schema conflicts (foreign key mismatches, auto-increment errors), improving **database integrity**.

Database Design & Development – Database Management Systems Jul 2025 – Dec 2025

- Designed a complete Crow’s Foot **Entity-Relationship Diagram (ERD)** for an organization focused on modeling multi-level relationships while creating the appropriate bridge tables to resolve the many-to-many relationships.
- Built an **SQL** script that created all tables with the required datatypes, naming conventions, & structures defined in the ERD—including primary & foreign keys, bridge tables, and discriminator fields.
- Created three production-ready analytical **SQL** views that compute rankings, monthly profits, and business-level summaries required by management.

TIGERCHOW - Software Engineering Project – Scrum Master Jan 2025 – May 2025

- Led **backend** development of a **microservices-based** food delivery app within a 4-person Agile Team. Oversaw the design and implementation of Notification, Order, & Review services.
- Managed teamwork progress via **Trello** and coordinated **API** development testing in **Postman**. Facilitated **agile** meetings and ensured that progress goals were met on time.

WORK EXPERIENCE

Clemson University, Residential Community Mentor (RCM), Clemson, SC Jul 2023 – May 2026

- Served as a peer leader to 75+ 1st year students, providing guidance on academic resources, campus integration, and personal development.
- Maintained detailed shift logs and incident reports during overnight on-call rotations.
- Strengthened interpersonal and troubleshooting skills through mentoring and issue resolution.