

# MARVIN ASTONITAS CANEDO

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## SUMMARY

Junior CS student at George Mason University with experience in **game design, UI/UX, and interactive systems**. Built Unity-based games with user-centered design, testing, and animation. Skilled in backend development, C/C#, and Python with strong collaboration and communication skills. **U.S. citizen; clearance-eligible.**

## EDUCATION

### George Mason University

*B.S. in Computer Science (Expected: Dec 2026)*

Fairfax, VA

*Aug 2024 – Present*

### Northern Virginia Community College

*A.S. in Computer Science*

Annandale, VA

*Aug 2023 – July 2024*

## TECHNICAL SKILLS

**Languages:** Python, C#, C, JavaScript(Beginner)/HTML/CSS, Java

**Frameworks/Tools:** Unity, Flask, SQLAlchemy, Git, Bash, VS Code, Visual Studio, SQLite

**Design/UX:** User Testing, UI/UX Prototyping, Animation via Unity, Game Loop / State Machines

**Productivity:** Microsoft Office Suite (Word, Excel, PowerPoint)

## RELEVANT PROJECTS

### *CommuteCompanion* – Software Engineer (C# client & Flask API)

May 2025 – Aug 2025

- Built a C# `HttpClient` wrapper (10s timeout, JSON serialization) to call Flask endpoints (e.g., `/api/v1/rides/start`); structured error handling for reliability.
- Defined request/response schemas and documented recurring setup/run steps to onboard teammates quickly.
- Validated inputs server-side and returned consistent status codes for easier client-side handling.

### *OutfitPartPicker* — Backend Engineer (Flask, SQLAlchemy, SQLite)

May 2025 – July 2025

- Co-developed a Python/Flask REST service for assembling outfits from structured data; wrote endpoint documentation and setup notes.
- Designed **SQLAlchemy models** (User, Post, Outfit, Piece, Like, Comment, Feedback); kept routes thin, logic in models.
- Implemented lightweight session-based auth placeholder and input validation; wrote **7** unit tests (PyTest) for edge cases.

### *We're Ducked* — Unity Developer / Team Lead (Local Co-op)

Jan 2025 – May 2025

- Led a team of **4**; delivered modular systems (weather events via ScriptableObjects + state machine) and documented feature specs for maintainability.
- Unity weather system using ScriptableObjects + state machine; reduced per-feature code changes by 50%
- Implemented **tag-based crafting** with dictionary lookups; prepared JSON-ready data format and validations.

### *HIY Task Manager Shell* — C, UNIX Signals/Processes

Nov 2024 – Dec 2024

- Implemented a mini shell with FG/BG job control and states (Ready, Running FG/BG, Suspended, Finished, Killed)
- Handled **SIGCHLD/SIGINT** to avoid zombie processes; updated internal job table atomically.
- Employed safe string handling and defensive checks to reduce undefined behavior in low-level code paths.

### *MotifSearch* — C, Pointers & Dynamic Memory (DNA pattern scan)

Sep 2024 – Oct 2024

- Built a command-line scanner using a sliding window; reported match indices and frequency summary.
- Emphasized **secure C practices**: `fgets/sscanf` for bounded input, explicit allocation/free, and bounds checks.

## ADDITIONAL

**Languages:** English (native), Spanish (professional)

**Citizenship:** U.S. citizen; eligible for security clearance